

# Regulation establishing a Network Code on Capacity Allocation and Congestion Management and a guideline on Governance supplementing Regulation (EC) 714/2009

Working draft

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## PURPOSE AND OBJECTIVES

Notice for the reader: Sections marked with colours or in brackets:

[not clear yet or needs to be finalised]

[timing issues]

(alternative wording depending on the solution for single intraday coupling)

Having regard to Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC,

Having regard to Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003 and especially Article 6(11) and Article 18(3)(b), (d) and (4) thereof.

Whereas:

1. Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC and Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 underline the need for an increased cooperation and coordination among Transmission System Operators, hereinafter TSOs, within a European Network of Transmission System Operators for Electricity, hereinafter ENTSO-E, to create network codes for providing and managing effective and transparent access to the transmission systems across borders, and to ensure coordinated and sufficiently forward-looking planning and sound technical evolution of the transmission system in the Community, including the creation of interconnection transmission capacities, with due regard to the environment.
2. As stated in Directive 2009/72/EC a well-functioning internal market in electricity should provide producers with the appropriate incentives for investing in new power generation, including in electricity from renewable energy sources, paying special attention to the most isolated countries and regions in the European Union's energy market. A well-functioning market should also provide consumers with adequate measures to promote the more efficient use of energy for which a secure supply of energy is a precondition.
3. The security of energy supply is an essential element of public security and is therefore inherently connected to the efficient functioning of the internal market in electricity and the integration of the isolated electricity markets of Member States. Electricity can reach the citizens of the Union only through the network. Functioning electricity markets and, in particular, the networks and other assets associated with electricity supply are essential for public security, for the competitiveness of the economy and for the well-being of the citizens of the Union. Article 16 of Regulation (EC) No 714/2009 states that the maximum capacity of the interconnections and the transmission systems affecting cross-border flows shall be made available to market participants, complying with safety standards of secure network operation and that network congestion problems shall be addressed with non-discriminatory market-based solutions which give efficient economic signals to the market participants and TSOs involved.
4. This Regulation defines common rules for capacity calculation and allocation in the day ahead and intraday timeframes and is meant to introduce an ultimately EU-wide system of single day-ahead and intraday coupling.
5. Articles 1- XX of this Regulation were developed and adopted as a Network Code pursuant to Article 6 of Regulation (EC) No 714/2009. Articles GC 1 – GC XX were developed and adopted a Commission Guidelines under Article 18 of the same Regulation.

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6. To implement market coupling, the available cross-border capacities need to be calculated jointly by the TSOs. For this purpose, they establish a common grid model including estimates on generation, load and network status for each hour. The available capacities will normally be calculated according to the so-called flow-based calculation method, a method that takes account that electricity can flow via different paths and optimises the representation of available capacities in meshed grids. The available cross-border capacities are one key input for the further calculation process, in which all EU bids and offers, collected by power exchanges, are matched, taking into account the available cross-border capacities in an economically optimal manner. Market Coupling ensures that power usually flows from low price to high price areas. The Market Coupling Operator, hereinafter MCO, uses a specific algorithm to match bids and offers in an optimal manner. As a monopoly function, the MCO function will be regulated. The results of the calculation are made available to all power exchanges on a non-discriminatory basis. Based on the results of the calculation by the MCO, the power exchanges inform their clients on the successful bids and offers. Subsequently, the energy is transferred across the network according to the results of the MCO calculation. A similar process applies for the single intraday market coupling, with the exception that it uses a continuous process of auctions throughout the day and not one single calculation as in day-ahead.
7. The single day ahead and intraday market coupling will be implemented stepwise as it requires, inter alia, the establishment of a common capacity calculation methodology at a minimum on regional level and the development of an algorithm to match bids and offers. As close cooperation between TSOs, power exchanges and regulators is needed in the implementation phase, specific committees are created to facilitate cooperation. The Regulation sets out deadlines for the different steps in the process to ensure timely implementation.
8. The allocation of long term interconnection capacity shall be dealt with in a forthcoming forward capacity allocation network code.
9. It is necessary to establish a robust, reliable and non-discriminatory European Union governance framework for a European single day-ahead market coupling and for a European single intra-day coupling through a legally binding guideline which strives for a high level of harmonization of national or regional single day-ahead and intra-day coupling governance arrangements including the relation between TSOs and Market Operators.
10. It is necessary take into account the different legal statuses and situations of market operators in different Member States.
11. The Guidelines on the Management and Allocation of Available Transfer Capacity of Interconnectors between National Systems annexed to Regulation (EC) No 714/2009 require TSOs to coordinate capacity allocation by defining common rules for the allocation of interconnection capacity in the different timeframes.
12. The capacity calculation covers the day ahead and intraday market timeframes. Capacities will be updated in a timely manner based on latest information through an efficient capacity calculation process.
13. Capacity calculation will be coordinated at least at a regional level to ensure reliable capacity calculation and that optimal capacity is made available to the market. Common regional capacity calculation methodologies will be established to define inputs, calculation approach, and validation requirements.
14. There are two permissible approaches when calculating cross zonal capacity: Flow based or coordinated net transmission capacity based. The flow based approach is preferred over the coordinated net transmission capacity approach for day ahead and intraday capacity calculation where interdependencies of cross zonal capacity between bidding zones is high. Flow based approach should only be introduced after market participants have been consulted and given sufficient preparation time to allow for a smooth transition. The coordinated net transmission capacity approach may be applied in regions where

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interdependencies between cross zonal capacity are low and there is no added value to apply the flow based approach.

15. A common grid model representing the European interconnected system, will be established to calculate cross zonal capacity in a coordinated way. The common grid model will include a model of the transmission system and with the location of generation and load units relevant to cross zonal capacity calculation. The provision of accurate and timely information by each TSO is essential to the creation of the common grid model.
16. The common grid model will require each TSO to prepare an individual grid model of their system and send it to TSOs responsible for merging them into a common grid model. The individual grid models will include information from generation and load units.
17. TSOs will use a common set of remedial actions to deal with both internal and cross zonal congestions. TSOs will coordinate the use of remedial actions in capacity calculation to facilitate more efficient capacity allocation.
18. Bidding zones will be defined to ensure efficient congestion management and overall market efficiency. Bidding zones can be subsequently modified by splitting, merging or adjusting the zone borders. Bidding zones will be consistent across different market timeframes.
19. TSOs will implement coordinated redispatching of cross border relevance or countertrading at least regionally. Redispatching of cross border relevance or countertrading shall be coordinated with control area internal redispatching or countertrading.
20. Capacity is allocated in the day ahead and intraday timeframes using implicit allocation methods (unless transitional arrangements apply). In the case of the Single Day Ahead Coupling this method shall be implicit auctions and in the case of the Single Intraday Coupling it shall be continuous implicit allocation. The operation of implicit auctions relies on effective and timely interfaces between TSOs, power exchanges and a series of other parties to ensure capacity is allocated and congestion managed in an efficient manner.
21. Implementation of the European single day-ahead coupling and the European intra-day coupling should initially develop in appropriate regional initiatives, which shall in all cases ensure compatibility with and lead to a single day-ahead coupling and single intra-day coupling system implemented at a European level.
22. For efficiency reasons, single day-ahead coupling and single intra-day coupling shall make use of existing market operators without precluding competition from new operators.
23. The European Commission in cooperation with the Agency may create or appoint a single regulated entity to perform some common MCO functions related to the market operation of the single day-ahead and single intra-day coupling.
24. The development of more liquid intraday markets which provide abilities for parties to balance their positions closer to real time, will facilitate the integration of renewable energy sources into the European electricity market and thus, in turn, facilitate renewable energy policy objectives.
25. Day ahead and Intraday cross zonal capacity shall be firm, thereby enabling effective cross border allocation and contributing to the objectives of the Regulation (EC) No 714/2009.
26. Pan European implicit auctions require a pan European price coupling process. This process will respect transmission capacities and allocation constraints and will be designed in a manner to allow application/extension across the entire EU and the development of future new product types.

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27. Establishing a pan European price coupling process requires cooperation between potentially competing power exchanges in order to establish common market coupling functions. That is why compliance with competition rules and oversight is of utmost importance regarding these common functions.
28. While order submissions to the price coupling process shall be defined in Euros, this shall not preclude ~~national~~ markets from settling in local currency and converting orders to Euros prior to their submission.
29. Despite the creation of a robust algorithm and appropriate back up processes, there may be situations where the price coupling process is unable to produce results. Consequently fallback solutions will be required at a national and regional level to ensure capacity can still be allocated.
30. Continuous implicit trading will be implemented in the Intraday timeframe with reliable pricing of transmission capacity reflecting congestion in case of scarce capacity.
31. Efficiently incurred costs associated with guaranteeing firmness of capacity and the costs of establishing processes to comply with this network code will be recovered via network tariffs or appropriate mechanisms in a timely manner. NEMOs and market coupling operator entities, hereinafter MCO entities, shall be entitled to recover their incurred costs if they are reasonable and proportionate..
32. Rules for sharing between Member States of common costs of a single day-ahead coupling and single intra-day coupling shall be agreed before the implementation process started in order to avoid delays and disputes due to cost sharing.
33. Transitional arrangements may allow direct explicit access for Intraday capacity via the capacity management module subject to relevant regulatory approval.
34. This Regulation has been adopted on the basis of Regulation (EC) No 714/2009 which it supplements and of which it forms an integral part. References to Regulation (EC) No 714/2009 in other legal acts shall be understood as also referring to this Regulation.
35. The measures provided for in this Regulation are in accordance with the opinion of the Committee referred to in Article 23 (1) of Regulation (EC) No 714/2009.

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## I. Network Code on Capacity Allocation and Congestion Management

### TITLE 1

#### GENERAL PROVISIONS

##### Article 1

#### SUBJECT MATTER AND SCOPE

1. This Regulation sets common rules for cross Zonal Capacity Allocation and congestion management in the Day Ahead and Intraday Markets. This will involve the establishment of common methodologies for determining the volumes of capacity simultaneously available between Bidding Zones and criteria to assess efficiency and a review process for defining Bidding Zones. Within the Day Ahead and Intraday Markets, Capacity Allocation shall refer to implicit Allocation unless stated otherwise.
2. The provisions of this network code shall apply to transmission systems and interconnections except the transmission systems on islands which are not connected with other transmission systems with interconnections
3. In Member States where more than one transmission system operator exists, this Regulation shall apply to all transmission system operators within that Member State. Where a transmission system operator does not have a function relevant to one or some obligations under this Network Code, Member States may under the national regulatory regime provide that the responsibility to comply with one or some obligations under this Network Code is assigned to one or more different specific transmission system operators. In case of such assignment, the Network Code shall apply accordingly to the transmission system operators to which responsibilities have been assigned.

##### Article 2

#### DEFINITIONS (glossary)

For the purposes of this Regulation, the definitions in Article 2 of Regulation (EC) No 714/2009, Commission Regulations establishing Network Codes that have been adopted according to Article 6(11) of Regulation (EC) No 714/2009, as well as of Article 2 of Regulation 543/2013 on submission and publication of data in electricity markets and Article 2 of Directive 2009/72/EC shall apply. In addition, the following definitions shall apply:

**Agency** means the Agency for the Cooperation of Energy Regulators as established by Regulation (EC) No 713/2009;

**Allocation Constraints** means the constraints to be respected during Capacity Allocation that are needed to maintain the transmission system within Operational Security Limits and were not translated into Cross Zonal Capacity or are needed to increase the efficiency of Capacity Allocation. Allocation Constraints may include constraints related to generation or generation reserves within a Bidding Zone or, constraints related to change of power flows on interconnection between consecutive Market Time Units (ramping constraints) and constraints related to transmission losses on interconnections between Bidding Zones;

**Capacity Calculation Region** means the geographic area in which coordinated capacity calculation shall be applied;

**Capacity Management Module** means a module for the intraday capacity calculation system containing up to date available Cross Zonal Capacity in real time for allocating Cross Zonal Capacity;

**Deleted:** A TSO belongs to a Capacity Calculation Region if its Control Area encompasses parts of the entirety of at least one Bidding Zone Border within the Capacity Calculation Region;

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**Central Counter Party** means the role of entering into contracts with Market Participants, by novation of the contracts resulting from the Matching process and of organizing the transfer of Net Positions resulting from Capacity Allocation with other Central Counter Parties or Shipping Agents;

**Clearing Price** means the price determined from the highest accepted selling Order and the lowest accepted buying Order;

**Common Grid Model** means a European-wide or multiple-TSO-wide data set describing power system characteristics (generation, loads and grid topology) and rules to change these characteristics during capacity calculation, created through the merging of relevant data;

**Congestion Income** means the revenues received as a result of Capacity Allocation;

**Congestion Income Distributor** means the role of distributing Congestion Income;

**Coordinated Capacity Calculator** means the role of calculating Cross Zonal Capacity, at least at a regional level and managing the validation process;

**Coordinated Net Transmission Capacity Approach** means the capacity calculation method based on the principle of assessing and defining ex-ante a maximum energy exchange between adjacent Bidding Zones;

**Remedial Action with costs** means a Remedial Action with direct payments made to procure the service which may include but shall not be limited to Countertrading and Redispatching;

**Cross Zonal** means across a border between two bidding zones;

**Cross Zonal Capacity** means the capability of the Interconnected System to accommodate energy transfer between Bidding Zones. It can be expressed either as a Coordinated Net Transmission Capacity value or Flow Based Parameters,

**Day Ahead Market** means the market timeframe until the Day Ahead Market Gate Closure Time where commercial electricity transactions are executed the day prior to the day of delivery of traded products for each market time Unit,

**Day Ahead Firmness Deadline** means the point in time after which Cross Zonal Capacity becomes firm;

**Day Ahead Market Gate Closure Time** means the point in time until which Orders are accepted in the Day Ahead Market;

**Consumer surplus for the single day ahead or intraday coupling** means the sum of differences between the prices of accepted buying orders and the clearing price multiplied by the underlying energy of each accepted buying order for the relevant time period;

**Supplier surplus for the single day ahead or intraday coupling** means the sum of differences between the clearing price and the prices of accepted selling orders multiplied by the underlying energy of each accepted selling order for the relevant time period;

**Economic Surplus for the single day ahead or intraday coupling** : means the sum of suppliers surplus for the single day ahead or intraday coupling, consumers surplus for the single day ahead or intraday coupling, Congestion Income and other related costs and benefits where these increase economic efficiency for the relevant time period;

**Emergency Situation** means a situation where the TSO must act in an expeditious manner and Redispatching or Countertrading is not possible as defined by Article 16 of Regulation (EC) No 714/2009;

**Firm/Firmness** means a guarantee that [cross-zonal](#) capacity rights remain unchanged or are compensated;

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**Flow Based Approach** means a method for capacity calculation in which the exchanges between Bidding Zones are limited by the maximum flows on the Critical Network Elements and Power Transfer Distribution Factors;

**Force Majeure** means, for the purpose of application in respect of capacity allocation mechanisms as foreseen in Article 16 of Regulation (EC) No 714/2009, any unforeseeable or unusual event or situation beyond the reasonable control of a TSO, and not due to a fault of such TSO, which cannot be avoided or overcome with reasonable foresight and diligence, which cannot be solved by measures which are from a technical, financial or economic point of view, reasonably possible for the TSO, which has actually happened and is objectively verifiable, and which makes it impossible for such TSO to fulfil temporarily or definitively, its obligations in accordance with this Network Code. This definition is without prejudice to national liability rules.

**Generation Shift Keys** mean a method of translating a Net Position change of a given Bidding Zone into estimated specific injection increases or decreases in the Common Grid Model;

**Individual Grid Model** means a data set describing power system characteristics (generation, load and grid topology) and related rules to change these characteristics during capacity calculation prepared by the responsible TSOs, to be merged with other Individual Grid Model components in order to create the Common Grid Model;

**Intraday Market** means the electricity market which operates for the period of time between Intraday Cross Zonal Gate Opening Time and Intraday Cross Zonal Gate Closure Time, where commercial electricity transactions are executed prior to the delivery of traded products after Day Ahead Market Gate Closure Time for Standard and Non-Standard Intraday Products;

**Intraday Cross Zonal Gate Closure Time** means the point in time where Cross Zonal Capacity Allocation is no longer permitted for a given Market Time Unit There is one Intraday Cross Zonal Gate Closure Time for each Market Time Unit for a given Bidding Zone Border;

**Intraday Cross Zonal Gate Opening Time** means the point in time when Cross Zonal capacity between Bidding Zones is released for a given Market Time Unit and a given Bidding Zone Border;

**Intraday Energy Gate Closure Time** means the point in time when energy trading for a Bidding Zone is no longer permitted for a given Market Time Unit within the Intraday Market. There is one Intraday Energy Gate Closure Time for each Market Time Unit per Bidding Zone.

**Intraday Energy Gate Opening Time** means the point in time when energy trading for a Bidding Zone is permitted for a given Market Time Unit There is one Intraday Energy Gate Opening Time for each day of delivery per Bidding Zone. The Intraday Energy Gate Opening Times of at least the Bidding Zones adjacent to a Bidding Zone Border shall be prior or equal to the Intraday Cross Zonal Gate Opening Time of this Bidding Zone Border;

**Market Congestion** means a situation in which the Economic Surplus for the single day-ahead or intraday coupling has been limited by the Cross Zonal Capacity or other active Allocation Constraints;

**Market Coupling Operator Function** means the role of Matching Orders for all Bidding Zones in the single day-ahead and intra-day coupling, taking into account Allocation Constraints and Cross Zonal Capacity and thereby implicitly allocating capacity;

**Market Participant** means market participant within the meaning of the Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency;

**Market Time** means Central European Summer Time or Central European Time, whichever is in effect;

**Matched Orders** means all matched, buy and sell, Orders within a Trade performed by the Price coupling or continuous trading matching Algorithm;

**Deleted:** [The Intraday Energy Gate Closure Times shall be after or at the same time as the Intraday Cross Zonal Gate Closure Time;]

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**Matching** means the trading mode through which sell Orders are assigned to appropriate buy Orders to ensure the maximization of Economic Surplus for the single day-ahead or intraday coupling ;

**Net Position** means the netted sum of electricity exports and imports for each Market Time Unit for a Bidding Zone.

**Remedial Action without costs** means a Remedial Action without direct payments by a TSO;

**Operational Security** means keeping the Transmission System within agreed Operational Security Limits;

**Order** means an intention to purchase or sell energy or capacity expressed by a Market Participant subject to specified execution conditions;

**Physical Congestion** means any network situation, either identified in a Common Grid Model, or occurring in real time, where power flows have to be modified to respect Operational Security;

**Price Coupling Algorithm** means the algorithm used in the Single Day Ahead Coupling for Matching orders

**Continuous Trading Matching Algorithm** means the algorithm used in the continuous intraday Coupling for Matching orders

**Reliability Margin** means the necessary margin reserved on the permissible loading of a Critical Network Element or Cross Zonal Capacity to cover uncertainties of power flows in the period between the capacity calculation and real time, taking into account the availability of Remedial Actions;

**Remedial Action** means a measure activated by one or several TSOs, manually or automatically, that relieves or contributes to relieving Physical Congestions, for example redispatching or countertrading.. They can be applied pre-fault or post-fault and may involve costs;

**Scheduled Exchange** means the transfer scheduled between geographic areas, for each Market Time Unit and for a given direction;

**Scheduled Exchange Calculator** means the role of calculating Scheduled Exchanges;

**Shared Order Book** means a module in the continuous intraday coupling system collecting all matchable Orders from the participating NEMOs in the single intra-day coupling and performing continuous Matching of those Orders;

**Shipping Agent** means the role of transferring Net Positions between different Central Counter Parties;

**Standard Intraday Product** means a product for continuous intraday coupling for a constant energy delivery for a period not exceeding one hour;

**Non-standard intraday product** means a product for continuous intraday coupling with specific characteristics designed to reflect system operation practices or market needs, examples may include but shall not be limited to, orders covering multiple Market Time Units and products reflecting startup costs;

**Structural Congestion** means congestion in the Transmission System that can be unambiguously defined, is predictable, is geographically stable over time and is frequently reoccurring under common circumstances;

**System Security** means the ability of the power system to withstand unexpected disturbances or contingencies;

**Trade** means one or more Matched Orders; and

**Single day-ahead coupling** means a coordinated electricity price setting and cross-zonal capacity allocation mechanism performing simultaneously with matching orders, using orders of the day-ahead markets per bidding zone and respecting Cross zonal capacities and allocation constraints between bidding zones.

**Deleted: Critical Network Element Flow Margin** means the maximum additional flows allowed on Critical Network Elements as a consequence of the changes in Net Positions resulting from Capacity Allocation in Capacity Calculation Region; ¶

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**Single intra-day coupling** means an implicit cross-zonal capacity allocation mechanism which collects orders per bidding zone from wholesale market participants and matches them continuously into contracts to deliver electricity while respecting cross-zonal capacities and allocation constraints, available in the intra-day timeframe once the day-ahead market allocation process has taken place.

**Market operator** means a role of operating or planning to operate a day-ahead market or a continuous intra-day market; additionally, the same entity may operate a ~~national or regional~~ intra-day auction market

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**Nominated Electricity Market Operator**, hereinafter NEMO, is a Market Operator that has been designated to participate in the single day-ahead or single intra-day coupling.

### Article 3

#### CONFIDENTIALITY OBLIGATIONS

1. All addressees of this regulation as well as third parties acting on behalf of addressees shall preserve the confidentiality of commercially sensitive information submitted to them in the fulfilment of the obligations arising from this Network Code.
2. Without prejudice to the obligation to preserve the confidentiality of commercially sensitive information obtained in the course of carrying out its activities, each TSO shall provide to the neighbouring TSO, sufficient information to ensure the secure and efficient operation.
3. ~~Nothing in this Network Code shall cause prejudice to the national laws and regulations of the Member States regarding public access to documents or the protection of classified information.~~

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### Article 4

#### OBJECTIVES OF CAPACITY ALLOCATION AND CONGESTION MANAGEMENT CO-OPERATION

1. This Network Code shall facilitate the achievement of the following objectives:
  - (a) promoting effective competition in the generation, trading and supply of electricity;
  - (b) ensuring optimal use of the transmission infrastructure;
  - (c) ensuring operational security;
  - (d) optimising the calculation and Allocation of Cross Zonal Capacity;
  - (e) ensuring non-discriminatory treatment of TSOs, NEMOs, the Agency, NRAs and market participants;
  - (f) ensuring and enhancing the transparency and reliability of information;
  - (g) contributing to the efficient long-term operation and development of the European electricity Transmission System and electricity sector;
  - (h) respecting the need for fair and orderly market and price formation;
  - (i) creating a level playing field for NEMOs; ~~and~~
  - (j) providing a non-discriminatory access to Cross Zonal Capacity.
2. The addressees of this Regulation shall cooperate in delivering the obligations specified within this Network Code, in order to promote the completion and efficient functioning of the Internal Market in electricity and to ensure the optimal management, coordinated operation and sound technical evolution of the European electricity Transmission System. In fulfilling the requirements of this Network Code, TSOs, NEMOs and NRAs shall exploit synergies, draw on experience gained through, respect decisions made as part of, and to use solutions developed as part of, capacity allocation and

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congestion management projects contributing to the development of the Internal Market in electricity at regional level commenced, concluded or on-going at the date at which this Network Code enters into force.

**Article 5**

**CONSULTATION**

1. The party responsible for submitting proposals for implementing measures pursuant to this regulation shall consult Market Participants or, when justified, the Stakeholder Committee on a draft proposal, for a period of not less than 4 weeks. The proposal in question shall be consulted on at European level.
2. At least the following proposals shall be subject to consultation:
  - (a) the Capacity Calculation Regions pursuant to Article 14;
  - (b) the generation and load data provision methodology pursuant to Article 16;
  - (c) the Common Grid Model methodology pursuant to Article 18; the Capacity Calculation methodologies pursuant to Article 22;
  - (d) Bidding Zone configurations pursuant to Article 37;
  - (e) Principles for coordinated Redispatching and Countertrading pursuant to Article 41;
  - (f) back-up procedures pursuant to Article 42;
  - (g) the proposal of the matching algorithms pursuant to Article 43 including the TSOs' and NEMOs' set of requirements for the algorithm development pursuant to Article 43(1)(a) and (b);
  - (h) Products accommodated to the single day-ahead and intra-day coupling pursuant to article 47 and 61;
  - (i) the Maximum and Minimum Prices according to Article 48 and 62;
  - (j) the methodologies for the calculation of Scheduled Exchanges pursuant to Article 50 and Article 64;
  - (k) fall-back procedures pursuant to Articles 52;
  - (l) the Intraday capacity pricing methodology pursuant to Article 63;
  - (m) the Intraday Cross Zonal Gate Closure Time pursuant to Article 67;
  - (n) complementary regional auctions pursuant to Article 71; and
  - (o) the Day Ahead Firmness deadline pursuant to Article 76.
  - (p) Removal of explicit allocation pursuant to Article 93.
  - (q) Arrangements for island systems with central dispatch pursuant to Article 96.
3. The views of stakeholders emerging from the consultations undertaken pursuant to paragraph 1 shall be duly considered by the party who is responsible for the proposal prior to the submission of the document for regulatory approval if required or prior to publication in all other cases. In all cases, a clear and robust justification of the reasons for including or not including the views emerging from the consultation in the submission shall be developed and published in a timely manner.

**[Old article 6 moved, Article 7 deleted]**

**Article 8**

**COLLECTIVE DECISIONS AND REGULATORY APPROVALS**

1. For those terms and conditions or methodologies in this Regulation which need to be developed and agreed by more than one TSO or NEMO, participating [relevant, concerned] TSO and NEMOs shall closely coordinate to ensure the development of harmonised terms and conditions or methodologies. All TSOs, with the assistance of ENTSO-E, and all NEMOs shall regularly inform the competent NRAs and the Agency about the progress of developing these terms and conditions or methodologies.

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2. TSOs or NEMOs deciding on proposals for terms and conditions and methodologies pursuant to Articles 14, 16, 18, 22, 25, 29, 32, 41, 43, 63, 81 and 83 shall decide with qualified majority as a last resort.
3. If TSOs or NEMOs fail to submit a proposal for terms and conditions or methodologies for approval pursuant which needs to be agreed by more than one TSO or NEMO within the respective deadline for the development of the proposal, the Agency shall in cooperation with the concerned NRAs, if the Commission requests so, investigate the reasons for the failure and issue an opinion within four months after the expiry of the deadline. The opinion may include recommendations to the European Commission to take legislative or other appropriate measures. For this purpose the TSOs and NEMOs shall provide the Agency with the relevant drafts and an explanation what prevents an agreement. The European Commission shall take a decision within four months on the appropriate steps to harmonise the required terms and conditions or methodologies.
4. In line with Article 37 of Directive EC/2009/72, each NRA shall be responsible for approving the terms and conditions or at least the methodologies used to calculate or establish the necessary steps to establish Single Day-Ahead and Intraday Coupling, including the procedures for the allocation of capacity and congestion management. They shall be responsible for approving the terms and conditions or methodologies referred to in paragraphs 5, 6 and 7.
5. The following needs the approval by all NRAs:
  - (a) the Capacity Calculation Regions pursuant to article 14;
  - (b) the generation and load data provision methodology pursuant to Article 16;
  - (c) the Common Grid Model methodology pursuant to Article 18;
  - (d) back-up procedures pursuant to Article 42;
  - (e) Maximum and Minimum Prices according to Article 48 and Article 62;
  - (f) the proposal for the algorithm submitted by NEMOs pursuant to Article 43(3) including the TSOs' and NEMOs' set of requirements for the algorithm development pursuant to Article 43(1)(a) and (b);
  - (g) Products accommodated to the single day-ahead and intra-day coupling pursuant to article 47 and 61;
  - (h) the methodologies for the calculation of Scheduled Exchanges pursuant to Article 50 and Article 64;
  - (i) the Intraday capacity pricing methodology developed pursuant to Article 63;
  - (j) the Day Ahead Firmness deadline pursuant to Article 76; and
  - (k) the Congestion Income distribution arrangements pursuant to Article 81 and Article 82.
  - (l) the plan on joint performance of MCO functions pursuant to Art GC3(3)
6. The following needs the approval by all NRAs of the concerned Capacity Calculation Region:
  - (a) the Capacity Calculation methodology pursuant to Article 22;
  - (b) the Methodology for coordinated Redispatching and Countertrading pursuant to Article 41; and
  - (c) the Redispatching or Countertrading cost sharing methodology pursuant to Article 83;
7. The following needs the approval by each NRA of the Member States concerned, as determined on a case-by-case basis:
  - (a) Bidding Zone configuration pursuant to Article 37;
  - (b) fall-back procedures pursuant to Article 52; the Intraday Cross Zonal Gate Opening Time and Intraday Cross Zonal Gate Closure Time pursuant to Article 67;
  - (c) complementary regional auctions pursuant to Article 71;

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Regulation establishing a Network Code on Capacity Allocation and Congestion Management and a Guideline on Governance and supplementing Regulation (EC) 714/2009

- (d) Shipping Agent arrangements pursuant to Article 74(4); and
  - (e) Capacity Allocation and congestion management costs pursuant to Articles 85 to 90.
  - (f) Removal of explicit auctions pursuant to Article 93.
  - (g) NEMO designation pursuant to Article GC1(2),
  - (h) the fees or the methodologies used to calculate the fees of NEMOs related to trading in the day-ahead and intra-day markets pursuant to Article GC1(4)(a), and
  - (i) recovery of regional and national costs of single day-ahead and intra-day coupling pursuant to Article GC 7(4).
8. The following is subject to opinion of the Agency:
- (a) Rules of procedures of the committees pursuant to Article GC13;
  - (b) participation of third countries in day-ahead coupling and single intra-day coupling pursuant to Article GC8; and
  - (c) A monitoring plan of ENTSO-E including a plan for reports to be prepared and any update of it pursuant to Article GC16(3).
9. TSOs and NEMOs shall submit to the competent NRA the terms and conditions or methodologies subject to approval pursuant to paragraphs 5 to 7 at the latest by the deadlines provided in this Network Code for the development of those terms and conditions or methodologies. The submitted terms and conditions or methodologies shall include a proposed timescale for implementation and a description of their expected impact on the objectives of this Network Code. Terms and conditions or methodologies subject to the approval by several or all NRAs shall be submitted to the Agency in parallel to the submission to NRAs. The Agency shall issue an opinion **within three months** on such terms and conditions or methodologies if the **concerned NRAs** requests so; otherwise it may issue an opinion on its own initiative.
10. NRAs concerned shall closely consult, cooperate and coordinate with each other in order to find the necessary common position required for the approval of terms and conditions or methodologies pursuant to paragraph 5 and 6, taking into account the opinion of the Agency. NRAs shall **take decisions** on approvals pursuant to paragraphs 5 to 7 within **six months**.
- 11. Where the NRAs have not been able to reach an agreement** within the period referred to in paragraph 10, or upon their joint request, the Agency shall **decide upon those regulatory issues within three months according to** Article 8(1) of Regulation (EC) No 713/2009.
12. In the event that **one or several** NRA decide **not to** approve the terms and conditions or methodologies submitted pursuant to paragraph 5 to 7, but to require an amendment to them before their approval, **the relevant** TSOs or NEMOs shall submit a proposal for amended terms and conditions or methodologies for approval **within two months** following the requirement from **the** NRAs. **The** NRAs shall decide on the amended terms and conditions or methodologies **within two months** after their submission. If **the relevant** TSOs or NEMOs fail to submit a proposal for amended terms and conditions or methodologies, the procedure described in paragraph 3 shall apply.

**Article 9**

**REVIEW OF TERMS AND CONDITIONS OR METHODOLOGIES**

1. The party responsible under the network code for developing a proposal for terms and conditions or methodologies approved pursuant to Article 8 may launch a review of these terms and conditions or methodologies.
2. Where a review of the terms and conditions or methodologies is launched by all relevant parties, they shall develop a proposal to amend or maintain the current terms and conditions or methodologies.

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3. The amendments to the terms and conditions or methodologies shall be consulted following the procedure foreseen in Article 5 and approved following the procedure foreseen in Article 8.

**Article 6**

**PUBLICATION OF INFORMATION REGARDING CAPACITY ALLOCATION AND CONGESTION MANAGEMENT METHODS**

1. The party responsible under this Regulation for establishing the following items shall publish through the internet after approval by the relevant NRAs or, if no such approval is required, after finalisation:
  - (a) terms and conditions, methodologies and description of the functional requirements of any algorithm pursuant to Article 5(2);
  - (b) information of the parameters used for capacity calculation pursuant to Article 34;
  - (c) Shipping Agent arrangements pursuant to Article 74(4);
  - (d) Congestion Income distribution arrangements pursuant to Article 81 and 82;
  - (e) the Redispatching or Countertrading cost sharing methodology pursuant to Articles 83 and 84; and
  - (f) Capacity Allocation and congestion management costs pursuant to Articles 85 to 90.
2. The TSOs of each Capacity Calculation Region applying Flow Based Approach shall publish a tool which enables the market participants to evaluate how generation, consumption and grid configuration influence the feasible cross-border flows between bidding zones.

**[TITLE 2 deleted]**

**TITLE 3**

**REQUIREMENTS**

**CHAPTER 1**

**CAPACITY CALCULATION**

**SECTION 1**

**GENERAL REQUIREMENTS**

**Article 13**

**CAPACITY CALCULATION TIMEFRAMES**

1. Cross Zonal capacity calculation shall produce results for at least the following Capacity Calculation Timeframes:
  - (a) Day Ahead capacity calculation Timeframe for the day Ahead Market; and
  - (b) Intraday capacity calculation Timeframe for the intra-day market.
2. For Day Ahead Timeframe Capacity Calculation shall produce unique Cross Zonal Capacities for each Day Ahead Market Time Unit. Each reassessment of Capacity Calculation in Intraday timeframe shall produce unique Cross Zonal Capacities for each remaining Intraday Market Time Unit.

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- For the Day Ahead Timeframe the Capacity Calculation Process shall be based on the latest available information. Information update for Day Ahead timeframe shall not start before 15:00 Market Time in D-2.
- All TSOs of each Capacity Calculation Region shall ensure that Cross Zonal Capacity is reassessed sufficiently often within the Intraday Timeframe based on the latest available information. The frequency of this Intraday reassessment shall take into account efficiency and System Security considerations.

Article 14

CAPACITY CALCULATION REGIONS

- No later than **two months** after the entry into force of this regulation, all TSOs shall make a common proposal regarding the Capacity Calculation Regions within which Coordinated Capacity Calculation shall be performed.
- In determining the Capacity Calculation Regions the following rules shall be complied with:
  - the proposal shall be based on the objectives of this Regulation; and
  - the proposal pursuant to paragraph 1 shall take due account of the regions specified in Article 3 (2) of Annex 1 of Regulation (EC) No 714/2009.
  - each Bidding Zone Border shall be attributed to one Capacity Calculation Region;
  - each Bidding Zone having Bidding Zone Borders belonging to several Capacity Calculation Regions shall be attributed to all of these Capacity Calculation Regions.
- The Capacity Calculation Regions applying a Flow Based Approach shall be merged to one Capacity Calculation Region provided that:
  - the Capacity Calculation Regions are linked Transmission Systems;
  - the Capacity Calculation Regions are within the same single day-ahead or intra-day coupling; and
  - merging the Capacity Calculation Regions is more efficient than keeping the Capacity Calculation Regions separate.

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SECTION 2

THE COMMON GRID MODEL

Article 16

GENERATION AND LOAD DATA PROVISION METHODOLOGY

- No later than **four months** after the entry into force of this Network Code, all TSOs shall develop a single methodology for the delivery of generation and load data required to establish the Common Grid Model. This document shall be termed the generation and load data provision methodology.
- The generation and load data provision methodology shall detail which generation and load units shall be required to provide information to their respective TSOs for the purposes of Capacity Calculation. The proposal shall include a justification, based on the objectives of this Network Code, demonstrating the reasons for requiring the information.

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3. The generation and load data provision methodology shall detail the information to be provided by generation and load units to TSOs. The information shall include, but not be limited to the following:
  - (a) information related to technical data;
  - (b) information related to availability;
  - (c) information related to scheduling of generation units; and
  - (d) relevant available information relating to how generation units will be dispatched.
4. The proposal shall include time schedules for providing information.
5. Each TSO shall use and share with other TSOs the information related to paragraph 3. Information in paragraph 3(d) shall be used for Capacity Calculation purposes only.
6. ENTSO-E shall publish no later than **two months** after the approval by all NRAs:
  - (a) a list of entities required to provide information;
  - (b) a list of information to be provided; and
  - (c) a time schedule for providing information.

**Article 18**

**COMMON GRID MODEL METHODOLOGY**

1. No later than **six months** after the entry into force of this Network Code, all TSOs shall submit a proposal for a Common Grid Model methodology to NRAs and the Agency.
2. The Common Grid Model methodology shall enable the establishment of the Common Grid Model in accordance with the objectives of this Network Code. At a minimum, it shall contain:
  - (a) a definition of scenarios in accordance with Article 20;
  - (b) a definition of Individual Grid Models in accordance with Article 21; and
  - (c) a description of the process to merge Individual Grid Models to form the Common Grid Model.

**Article 20**

**SCENARIOS**

1. All TSOs shall define a common set of scenarios for each Capacity Calculation Timeframe to be used to describe a specific forecasted situation with respect to generation, load and grid topology for the European interconnected system in the Common Grid Model.
2. One scenario per Market Time Unit shall be defined separately for the Day Ahead and the Intraday Capacity Calculation Timeframe.
3. For each scenario, common rules for fixing the Net Position in each Bidding Zone and the flow for each Direct Current Line shall be defined. These common rules shall be based on the best forecast of the Net Position for each Bidding Zone and flows on each Direct Current Line for each scenario and include the overall balance between load and generation for the European Interconnected System. There shall be no undue discrimination between internal and Cross Zonal exchanges when defining scenarios, in line with Point 1.7 of Annex I to Regulation (EC) 714/2009.

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Article 21

INDIVIDUAL GRID MODEL

1. Each Individual Grid Model shall represent the best possible forecast of Transmission System conditions for the specified scenario at the moment at which the Individual Grid Model is created.
2. For each Bidding Zone and for each scenario:
  - (a) all TSOs of the Bidding Zone shall provide a single Individual Grid model which respects the rules defined in Article 20(3); or
  - (b) each TSO of the Bidding Zone shall provide an Individual Grid Model for its Control Area provided that the sum of net positions in the Control Areas covering the Bidding Zone respects the rules defined in Article 20(3).
3. Individual Grid Models shall cover relevant network elements of the Transmission System.
4. All TSOs shall harmonize the way in which Individual Grid Models are built to the maximum possible extent.
5. Each TSO shall provide all necessary data in the Individual Grid Model to allow active and reactive power flow and voltage analyses in steady state.
6. Where appropriate, and upon agreement among all TSOs within a Capacity Calculation Region, each TSO of that Capacity Calculation Region shall exchange data to enable voltage and dynamic stability analyses.

SECTION 3

CAPACITY CALCULATION METHODOLOGIES

Article 22

CAPACITY CALCULATION METHODOLOGY

1. No later than **twelve months** after the entry into force of this Network Code, all TSOs of each Capacity Calculation Region shall submit a proposal for a common coordinated Capacity Calculation methodology to relevant NRAs and the Agency.
2. For the Day Ahead Timeframe and Intraday Timeframe the Capacity Calculation Approach in the Capacity Calculation Methodology shall be a Flow Based Approach, except where the requirements of paragraph 6 are met.
3. In regions based on (b) North-West Europe and (d) Central Eastern Europe as defined in the paragraph 3.2 of the Annex I of Regulation 714/2009 TSOs shall apply a common Capacity Calculation Methodology using Flow Based Approach no later than **X months regarding Day Ahead timeframe and Y months regarding intraday timeframe** after both regions have implemented Flow Based Approach on a regional level.
4. No later than **six months** after all countries having interconnections to Northern Italy are participating in the single day-ahead coupling, the Flow Based Approach shall be applied in the methodology

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according to paragraph 1 for the region based on (c) Italy as defined in the paragraph 3.2 of the Annex I of Regulation 714/2009, except on Bidding Zone Borders within Italy and between Italy and Greece. No later than **X months** after this region and both regions from paragraph 3 have implemented Flow Based Approach on a regional level, all three regions shall implement a common Capacity Calculation Methodology using Flow Based Approach. **"compatible" instead "common"**

5. Croatia, Romania, Bulgaria and Greece shall implement Flow Based Approach only when at least two third countries, having interconnections to these Member States, have concluded agreements with the **EU** and are participating in the single day-ahead coupling. The competent NRAs shall decide whether a transitory period of maximum **2 years** is needed to implement Flow Based Approach on Bidding Zone Borders of these Member States.

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6. Coordinated Net Transmission Capacity Approach may be applied in other regions **and Bidding Zone borders** not considered in paragraphs 3 to 5 **and in** Bidding Zone Borders within Italy and between Italy and Greece, if the application of the Flow Based Approach would not be more efficient assuming the same level of System Security.

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7. To enable Market Participants to adapt to any change in the Capacity Calculation Approach, **concerned** TSOs shall perform testing of the new approach in parallel to existing approach and involve Market Participants for at **least 6 months** before implementing a changed Capacity Calculation Approach.

8. The common coordinated Capacity Calculation Methodology for a Capacity Calculation Region shall meet the objectives of this Network Code and shall contain at least the following for each Capacity Calculation Timeframe:

(a) Methods for calculation of Capacity Calculation inputs:

- Method to define the Reliability Margin in accordance with Article 25;
- Method and criteria for determination of Contingencies relevant for Capacity Calculation, if Contingencies are not defined according to Operational Security Network Code;
- Method and criteria for determination of Operational Security Limits and Critical Network Elements in accordance with Article 27;
- List of Allocation Constraints that may be applied, their justification and a method for their calculation in accordance with Articles 28;
- Method for determination of the Generation Shift Keys in accordance with Article 29; and
- Method for determination of Remedial Actions to be considered in Capacity Calculation in accordance with Article 30.

(b) Detailed description of Capacity Calculation Approach:

- mathematical description of the applied Capacity Calculation Approach with different Capacity Calculation inputs;
- rules for avoiding undue discrimination between internal and cross zonal exchanges to ensure compliance with Point 1.7 of Annex I to Regulation (EC) 714/2009;
- rules to treat, where appropriate, previously allocated Cross Zonal Capacities;
- rules for adjustment of power flows on Critical Network Elements or Cross Zonal Capacities due to Remedial Actions to be considered in Capacity Calculation;
- when using the Flow Based Approach a mathematical description of calculation of Power Transfer Distribution Factors and available margins on Critical Network Elements;
- when using the Coordinated Net Transmission Capacity Approach the rules to calculate the Cross Zonal Capacities, including the rules to efficiently share the power flow capabilities of Critical Network Elements among different Bidding Zone Borders;
- where the power flows on Critical Network Elements are influenced by cross zonal power exchanges in different Capacity Calculation Regions, the rules to share among different

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Capacity Calculation Regions the power flow capabilities of Critical Network Elements to accommodate these flows.

- (c) Validation of Cross Zonal Capacity in accordance with Article 31.
9. For the Intraday Capacity Calculation Timeframe, the Capacity Calculation Methodology shall include the frequency at which capacity will be calculated for the Intraday Market, including a justification, as specified in Article 13(3).
  10. The Capacity Calculation Methodology shall include a fallback procedure consistent with the objectives of this Network Code.
  11. All TSOs of each Capacity Calculation Region shall harmonize the Capacity Calculation inputs used for the Capacity Calculation to the maximum possible extent.
  12. All TSOs shall progressively harmonize the Capacity Calculation Methodologies across Capacity Calculation Regions.

**article 24 merged with article 22**

**Article 25**

**RELIABILITY MARGIN**

1. The Reliability Margin shall take into account uncertainties between the Capacity Calculation Timeframe and real time respecting Operational Security and taking into account, Remedial Actions available after Capacity Calculation, and financial risks arising as a consequence of the applicable firmness arrangements of the allocated capacity.
2. The method for Reliability Margin pursuant to Article 22(8)(a) shall include two steps. In first step, the relevant TSOs shall estimate probability distribution of deviations between expected power flows at the time of Capacity Calculation and realised power flows in real time. In second step, the Reliability Margin shall be calculated by deriving a value from the probability distribution.
3. In method for Reliability Margin pursuant to Article 22(8)(a), the relevant TSOs shall define the principles for calculating the probability distribution of the deviations between expected power flows at the time of Capacity Calculation and realised power flows in real time as well as which uncertainties are taken into account in this calculation. In particular, these uncertainties shall consider deviations caused by:
  - (a) unintended deviations of physical electricity flows within a Market Time Unit caused by the regulation of electricity flows within and between Control Areas to maintain a constant frequency; and
  - (b) uncertainties which could affect Capacity Calculation and which could occur between the Capacity Calculation Timeframe and real time, for the Market Time Unit being considered.
4. In method for Reliability Margin pursuant to Article 22(4)(a), TSOs shall define common harmonized principles for deriving Reliability Margin from the probability distribution.
5. For each Capacity Calculation Timeframe, the Reliability Margin shall be defined for Critical Network Elements where Flow Based Approach is applied and for Cross Zonal Capacities where Coordinated Net Transmission Capacity Approach is applied.

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**Article 27**

**OPERATIONAL SECURITY LIMITS, CONTINGENCIES AND ALLOCATION CONSTRAINTS**

1. For Capacity Calculation, each TSO shall use Operational Security Limits and Contingencies used in Operational Security Analysis as defined in the [Network Code on Operational Security].
2. In case the Operational Security Limits and Contingencies used in Capacity Calculation are not the same as in Operational Security Analysis, TSOs shall describe in the Capacity Calculation methodology the method and criteria for determination of Operational Security Limits and Contingencies used for Capacity Calculation.
3. The determination of Allocation Constraints required by the Capacity Calculation Methodology developed pursuant to Article 22 may contain the use of:
  - (a) Constraints needed to maintain the transmission system within Operational Security Limits and cannot be translated efficiently to Maximum Flows on Critical Network Elements: or
  - (b) Constraints intended to increase Economic Surplus for the single day ahead or intraday coupling.

**[article 28]**

**Article 29**

**GENERATION SHIFT KEYS**

1. All TSOs of each Bidding Zone shall create one common Generation Shift Key for each scenario developed pursuant to Article 20
2. A Generation Shift Key shall represent the best forecast of the translation of a change in the Net Position of a Bidding Zone into a specific change of generation or load in the Common Grid Model. This forecast shall make use of information from the generation and load data provision methodology.

**Article 30**

**REMEDIAL ACTIONS IN CAPACITY CALCULATION**

1. Each TSO shall define the available Remedial Actions to be taken into account in Capacity Calculation to facilitate the objectives of this Network Code.
2. Each TSO shall ensure that Remedial Actions are taken into account in Capacity Calculation under the condition that the remaining available Remedial Actions together with the Reliability Margin defined in Article ~~30~~ are sufficient to ensure Operational Security.
3. Remedial Actions shall be taken into account in Capacity Calculation only when it is efficient to do so.
4. Each TSO shall take into account available Remedial Actions without costs during Capacity Calculation.
5. Each TSO shall ensure that Remedial Actions taken into account in Capacity Calculation are the same for all Capacity Calculation Timeframes, taking into account their technical availabilities for each Capacity Calculation Timeframe.

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6. Each TSO within each Capacity Calculation Region shall coordinate with other TSOs within the same region the use of Remedial Actions taken into account in Capacity Calculation and their actual application in real time operation.
7. To enable taking into account the Remedial Actions in Capacity Calculation all TSOs of each Capacity Calculation Region shall agree on the use of Remedial Actions that require the action of more than one TSO.

**Article 31**

**CROSS ZONAL CAPACITY VALIDATION**

1. Each TSO shall accept or correct Cross Zonal Capacity relevant to the TSO's Bidding Zone Borders or Critical Network Elements provided by the Coordinated Capacity Calculators pursuant to Article 32 and CG5(1)(c).
2. Where a Coordinated Net Transmission Capacity Approach is applied, all TSOs of the Capacity Calculation Region shall include in the Capacity Calculation Methodology a rule for splitting the correction of Cross Zonal Capacity between the different Bidding Zone Borders.
3. During the validation process, and only for reasons of System Security, each TSO may reduce the Cross Zonal Capacity.
4. Each Coordinated Capacity Calculator shall coordinate with the neighbouring Coordinated Capacity Calculators during Capacity Calculation and validation.
5. Each Coordinated Capacity Calculator shall, every three months, report all reductions made during the validation of Cross Zonal Capacity to all NRAs of the Capacity Calculation Region. This report shall include the location and amount of any reduction and shall include a justification for the reductions.
6. All NRAs of the Capacity Calculation Region shall decide whether to publish all or part of the report.

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**SECTION 4:**

**THE CAPACITY CALCULATION PROCESS**

**Article 32**

**GENERAL PROVISIONS**

1. No later than twelve months after the entry into force of this Network Code, all TSOs shall be responsible for organising the process of merging of the individual grid models.
2. No later than twelve months after the entry into force of this Network Code, all TSOs of each Capacity Calculation Region shall establish the Coordinated Capacity Calculators and define rules for the operation of the Coordinated Capacity Calculators.
3. The Coordinated Capacity Calculators shall carry out the Capacity Calculation Process at least on a regional basis as defined in Article 34 and the management of the validation of Cross Zonal Capacity values and the provision of information for the purposes of Capacity Allocation as defined in Article 35.

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4. All TSOs shall, every second year as part of the biennial report on Capacity Calculation produced in accordance with Article 36, review the quality of data submitted within the Capacity Calculation Process.
5. All TSOs shall regularly and **at least once a year** update and review using the latest available information:
  - (a) Operational Security Limits, Contingencies and Allocation Constraints used for Capacity Calculation;
  - (b) Expected distribution of the deviations between expected power flows at the time of Capacity calculation and realised power flows in real time used for calculation of Reliability margins
  - (c) Remedial actions taken into account in for Capacity Calculation.
  - (d) Application of the methodology for determination of Generation Shift Keys, Critical Network Elements and Contingencies.

**Article 33**

**CREATION OF THE COMMON GRID MODEL**

1. For each Capacity Calculation Timeframe as specified in Article 13(1), each generator or load unit included in the generation and load data provision methodology established pursuant to Article 16 shall provide the data specified in the methodology in the timescales specified in the methodology to the TSO responsible for the respective Control Area.
2. Each generator or load unit providing information pursuant to Article 16(3) shall deliver a set of estimations, maximising the reliability of these estimations.
3. For each Capacity Calculation Timeframe, each TSOs shall provide the Individual Grid Model for each scenario in accordance with Article 21 for merging individual grid models.
4. Each TSO shall deliver a reliable set of estimations for each Individual Grid Model as practicable.
5. For each Capacity Calculation Timeframe a single, Europe wide, Common Grid Model for each scenario shall be created as specified in Article 20 by merging inputs from all TSOs applying the process specified in Article 32.

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**Article 34**

**REGIONAL CALCULATIONS OF CROSS ZONAL CAPACITY**

1. For each Capacity Calculation Timeframe, each TSO shall provide the Coordinated Capacity Calculators and all TSOs of that Capacity Calculation Region with Operational Security Limits, Generation Shift Keys, Remedial Actions, Reliability Margins, Allocation Constraints and previously allocated Cross Zonal Capacities.
2. Each Coordinated Capacity Calculator shall perform a system security analysis applying Operational Security Limits as defined in accordance with Network Code on Operational Security by using Common Grid Model created pursuant to Article 33 for each scenario. **Inconsistency with Article 27?**
3. When calculating Cross Zonal Capacity, each Coordinated Capacity Calculator shall calculate the impact of the change of Bidding Zone Net Positions and flows on Direct Current Lines using Generation Shift Keys.
4. When calculating Cross Zonal Capacity, each Coordinated Capacity Calculator shall ignore those Critical Network Elements that are not significantly influenced by the changes in Bidding Zone Net Positions.

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5. When calculating Cross Zonal Capacity, each Coordinated Capacity Calculator shall ensure that all the sets of Bidding Zone Net Positions and flows on Direct Current Lines not exceeding the Cross Zonal Capacity, shall respect the Operational Security Limits and Reliability Margins pursuant to Article 22(8)(a) and take into account already allocated Cross Zonal Capacity pursuant to Article 22(8)(b).
6. Each Coordinated Capacity Calculator shall optimize Cross Zonal Capacity using available Remedial Actions taken into account in Capacity Calculation in accordance with Article 22(8)(a).
7. Each Coordinated Capacity Calculator shall apply the sharing rules established pursuant to Article 22(8)(b).
8. Each Coordinated Capacity Calculator shall respect the mathematical description of the applied Capacity Calculation Approach pursuant to Article 22(8)(b).
9. Each Coordinated Capacity Calculator applying Flow Based Approach:
  - (a) shall use data on Operational Security Limits to calculate the Maximum Flows on Critical Network Elements;
  - (b) shall use the Common Grid Model, Generation Shift Keys and contingencies to calculate the Power Transfer Distribution Factors;
  - (c) shall use Power Transfer Distribution Factors to calculate the flows resulting from previously allocated Cross Zonal Capacities in Capacity Calculation Region;
  - (d) shall calculate flows on Critical Network Elements for each scenario taking into account the Contingencies. These flows shall be adjusted by assuming no cross zonal power exchanges within the Capacity Calculation Region. When adjusting these flows, the rules for avoiding undue discrimination between internal and cross zonal power exchanges pursuant to Article 22(4)(b) shall be applied;
  - (e) shall calculate the available margins on Critical Network Elements taking into account the Contingencies. These available margins on Critical Network Elements shall equal Maximum Flows reduced by adjusted flows from (d), Reliability Margins and flows resulting from previously allocated Cross Zonal Capacities; and
  - (f) shall adjust the available margins on Critical Network Elements or Power Transfer Distribution Factors using available Remedial Actions to be considered in Capacity Calculation in accordance with Article 30.
10. Each Coordinated Capacity calculator applying Coordinated Net Transmission Capacity Approach shall:
  - (a) use Common Grid Model, Generation Shift Keys and contingencies to calculate maximum power exchange on Bidding Zone Borders. Maximum power exchange shall equal the maximum calculated exchange between two Bidding Zones on both sides of the Bidding Zone Border respecting Operational Security Limits;;
  - (b) adjust maximum power exchange using Remedial Actions taken into account in Capacity Calculation in accordance with Article 30
  - (c) adjust maximum power exchange using rules for avoiding undue discrimination between internal and cross zonal exchanges pursuant to Article 22(4)(b);
  - (d) apply the rule in accordance with Article 22(4)(b) to efficiently share the power flow capabilities of Critical Network Elements among different Bidding Zone Borders;
  - (e) Calculate Cross Zonal Capacity which shall be equal to maximum power exchange adjusted by Reliability Margin and already allocated Cross Zonal Capacities.
11. Each Coordinated Capacity Calculator shall cooperate with the neighbouring Coordinated Capacity Calculators. This coordination shall be ensured by neighbouring TSOs and be achieved by exchanging and confirming information regarding the interdependency between the regional

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Coordinated Capacity Calculators relevant for the capacity calculation and validation. Neighbouring TSOs shall provide information on the interdependency to the Coordinated Capacity Calculators before the capacity calculation. The biennial report prepared in accordance with Article 36 shall contain an assessment of the accuracy of this information and corrective measures, where appropriate.

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12. Each Coordinated Capacity Calculator applying:
  - (a) the Coordinated Net Transmission Capacity Approach shall produce the Cross Zonal Capacity values for each Bidding Zone Border within the Capacity Calculation Region; or
  - (b) the Flow Based Approach shall produce the Flow Based Parameters for each Bidding Zone within the Capacity Calculation Region.
13. Each Coordinated Capacity Calculator shall submit the Cross Zonal Capacities for validation, pursuant to Article 22(4)(c), to each TSO within that Capacity Calculation Region.

#### Article 35

##### VALIDATION AND DELIVERY OF CROSS ZONAL CAPACITY

1. Each TSO shall validate the results of the Regional Capacity Calculation on its Bidding Zone Borders or Critical Network Elements, in accordance with Article 31.
2. Each TSO shall send its capacity validation to the relevant Coordinated Capacity Calculators and to the other TSOs of the relevant Capacity Calculation Regions.
3. Results of the validation shall be provided by each Coordinated Capacity Calculator for the execution of Capacity Allocation in accordance with Articles 53 and 66.
4. Each TSO shall provide Allocation Constraints for the execution of Capacity Allocation in accordance with Articles 53 and 66.

#### SECTION 5

##### BIENNIAL REPORT ON CAPACITY CALCULATION

#### Article 36

##### BIENNIAL REPORT ON CAPACITY CALCULATION AND ALLOCATION

1. No later than 2 years after the entry into force of this Network Code ENTSO-E shall prepare and send to the Agency a report on the Capacity Calculation.
2. If requested to do so by the Agency, in every second subsequent year, ENTSO-E shall prepare and send to the Agency a report on the Capacity Calculation.
3. The report on Capacity Calculation shall contain, for each Bidding Zone, Bidding Zone Border or Capacity Calculation Region at least:
  - (a) the Capacity Calculation Approach used;
  - (b) statistical indicators on Reliability Margins;

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- (c) statistical indicators of the Cross Zonal Capacity including allocation constraints where appropriate for each Capacity Calculation Timeframe;
  - (d) quality indicators for the information used within the Capacity Calculation;
  - (e) where appropriate, proposed improvement measures for Capacity Calculation;
  - (f) for regions where Coordinated Net Transmission Capacity Approach is applied, an analysis verifying whether the conditions specified in Article 22(3) are still fulfilled; and
  - (g) indicators to assess and follow in the longer term the efficiency of single day-ahead and intra-day coupling
  - (h) recommendations for further development the single day-ahead and intra-day coupling including further harmonization of methodologies, processes and governance arrangements.
4. Statistical and quality indicators for the report shall be commonly agreed between all TSOs. The Agency shall be consulted on these indicators before their application and shall be able to require amendments.
5. The Agency shall decide whether to publish all or part of the biennial report.
6. Each TSO shall provide data to allow the preparation of the report in a timely manner.

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## CHAPTER 2

### BIDDING ZONES

#### Article 37

#### REVIEWING BIDDING ZONE CONFIGURATION

1. A review of the Bidding Zone configuration may be launched by:
- (a) The Agency pursuant to Article 39;
  - (b) relevant NRAs based upon a recommendation from the Agency;
  - (c) All TSOs or
  - (d) a National Regulatory Authority or a TSO, with the approval of its National Regulatory Authority, regarding the bidding zones inside the TSO's Control Area, where the bidding zone configuration has negligible impact on neighbouring TSOs' control areas and where the review of the Bidding Zone configuration is necessary to improve efficiency or to preserve the System Security.
  - (e) relevant Member States
2. In the event that the Agency, [irrelevant] TSOs, NRAs or Member States request to launch a review of the Bidding Zone configuration pursuant to paragraphs 1(a) or 1(b), they shall specify:
- (a) the geographic areas in which the Bidding Zone configuration shall be studied and the neighbouring geographic areas for which the impacts shall be taken into account;
  - (b) the participating TSOs; and
  - (c) the participating NRAs.
3. When a TSO, having gained the approval of its NRA, decides to launch a review of the Bidding Zone configuration pursuant to paragraph 1(d):
- (a) the geographic area in which the Bidding Zone configuration is studied shall be limited to the Control Area of that TSO;
  - (b) that TSO shall be the only participating TSO;
  - (c) that NRA shall be the only participating NRA;

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- (d) the launch of the review of Bidding Zone configuration shall be notified and justified by the TSO to the neighbouring TSOs, in timescales agreed bilaterally between those TSOs, and by the National Regulatory Authority to the neighbouring NRAs, before the application; and
- (e) such a review process shall be transparent
4. The participating TSOs involved in the review of the Bidding Zone configuration shall:
- (a) Perform the assessment of the Bidding Zone configuration. This assessment shall be undertaken in a coordinated way, unless paragraph 1(d) applies, and include NEMOs;
- (b) propose the alternative Bidding Zone configurations;
- (c) assess the current Bidding Zone configuration and each alternative Bidding Zone configuration using the criteria specified in Article 38;
- (d) perform a public consultation regarding the alternative Bidding Zone configuration proposals relative to the existing Bidding Zone configuration, including proposing timescales for implementation, unless the first condition of paragraph 1(d) applies; and
- (e) make the proposals to participating NRAs and Member States to maintain or amend the Bidding Zone configuration within twelve months of the decision to launch a review.
5. NEMOs or Market Participants shall, if requested by TSOs, provide participating TSOs with information to enable them to assess the Bidding Zone configuration. This information shall be shared only between the participating TSOs for the sole purpose of assessing the Bidding Zone configuration.
6. The review of the bidding zones shall be published by the Agency **[ENTSO-E?]**

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**Article 38**

**CRITERIA TO ASSESS THE EFFICIENCY OF ALTERNATIVE BIDDING ZONE CONFIGURATIONS**

1. When the Bidding Zone configuration is reviewed, at least the following criteria shall be considered:
- (a) In respect of network security:
- the ability of the Bidding Zone configuration to ensure Operational Security and the security of supply; and
  - the size of uncertainties in the cross Bidding Zone Capacity Calculation.
- (b) In respect of overall market efficiency:
- the increase or decrease in Economic efficiency arising from the change;
  - market efficiency, including, at least cost to guarantee firmness of capacity, market liquidity, market concentration and market power, the facilitation of effective competition, price signals for building infrastructure, the accuracy and robustness of price signals and transition costs, including costs of amending existing contractual obligations, incurred by Market Participants, NEMOs and TSOs;
  - the need to ensure the feasible market outcome without an extensive application of economically inefficient remedial actions
  - any adverse effects of internal transactions on other Bidding Zones to ensure compliance with Point 1.7 of Annex I to Regulation (EC) 714/2009; and
  - the impact on the operation and efficiency of the balancing mechanisms and imbalance settlement processes
- (c) In respect of the stability and robustness of Bidding Zones:

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- the need for Bidding Zones to be sufficiently stable and robust over time;
- the need for Bidding Zones to be consistent for all Capacity Calculation Timeframes;
- the need for each generation and load unit to belong to only one Bidding Zone for each Market Time Unit; and
- the location and frequency of congestion, provided that: Structural Congestions influence the delimitation of Bidding Zones; and taking into account future investments which may relieve existing congestions.

2. The review pursuant to Article 37 shall at least include analyses of scenarios with information for the calendar year ten years after the calendar year when the decision to launch the review was taken.

#### Article 39

##### TRIENNIAL ASSESSMENT OF THE CURRENT BIDDING ZONE CONFIGURATION

1. The efficiency of the current Bidding Zone configuration shall be assessed at least X years after the entry into force of this Network Code and on a periodic basis at least every 3 years following the completion of the previous assessment.
2. The assessment process shall consist of:
  - (a) a technical report prepared by ENTSO-E pursuant to Article 40; and
  - (b) a market report evaluating the influence of current Bidding Zones configuration on market efficiency prepared by the Agency.
3. In the event that inefficiencies in the current Bidding Zone configuration are identified in the technical or market report, the Agency may request to launch a process for reviewing of Bidding Zone configuration pursuant to article 37.

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#### Article 40

##### THE TRIENNIAL TECHNICAL REPORT

1. The triennial technical report shall include, at least:
  - (a) a list of Structural Congestions and other major Physical Congestions, including their location and frequency;
  - (b) an analysis of the expected evolution or removal of these Physical Congestions due to investments in networks or due to significant changes in generation or consumption patterns;
  - (c) an analysis of the share of power flows that do not result from the Capacity Allocation mechanism, for each Capacity Calculation Region where appropriate; and
  - (d) Congestion Incomes and Firmness costs.
2. Each TSO shall provide data and analysis to allow the preparation of the triennial technical report in a timely manner.
3. The first triennial technical report shall be delivered to the Agency no later than nine months after the entry into force of this Network Code, and thereafter on a triennial basis, no later than the end of June of the relevant year.
4. The triennial technical report shall provide information for the previous three calendar years finishing on the 31 December of the previous year.

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CHAPTER 3

Article 41

COORDINATED REDISPATCHING AND COUNTERTRADING

1. No later than **eighteen months** after the entry into force of this Network Code all TSOs of each Capacity Calculation Region shall develop a proposal for a common methodology for coordinated Redispatching and Countertrading.
2. The Methodology for coordinated Redispatching and Countertrading shall include actions of **cross border relevance** and shall enable **all** TSOs to effectively relieve physical congestion irrespective of whether caused by reasons significantly outside their area of responsibility or significantly within the area of their responsibility. The methodology for coordinated Redispatching and Countertrading shall address the fact that their application can significantly influence flows outside their area of responsibility.
3. Each TSO may redispatch all available generation or load units in accordance with the appropriate mechanisms and agreements applicable to its Control Area. By no later than **24 months** after the entry into force of this Network Code, and every **2 years** thereafter, if necessary, all TSOs of each Capacity Calculation Region shall develop proposals to be submitted to their respective NRAs to coordinate and harmonize these mechanisms and arrangements progressively. Such proposals shall aim to avoid that these mechanisms and arrangements distort the market.
4. **Each** TSOs shall abstain from unilateral or uncoordinated **Redispatching and Countertrading** measures of **cross border relevance** but coordinate the use of Redispatching and Countertrading resources taking into account the impact on system security and economic efficiency.
5. The prices of Redispatching and Countertrading shall be delivered to TSOs by the relevant producers **and other system users** before the application of Redispatching and Countertrading resources. The pricing of Redispatching and Countertrading shall be based on:
  - (a) prices in the relevant electricity markets of the relevant timeframe; or
  - (b) the costs of Redispatching and Countertrading resources, which have been calculated transparently on the basis of incurred costs. Generation and load units shall ex-ante provide all information necessary for calculating the Redispatching and Countertrading cost to the relevant TSOs. This information shall be shared between the relevant TSOs for Redispatching and Countertrading purposes only.

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CHAPTER 4

ALGORITHM DEVELOPMENT

SECTION 1

Article 42 (may go to GC)

GENERAL PROVISIONS

1. Cooperating within the framework of the NEMO Committee pursuant to Article GC 11, all NEMOs shall develop, maintain and operate:
  - (a) a Price Coupling Algorithm; and
  - (b) a Continuous Trading Matching Algorithm (TSOs).consistent with the objectives of this Network Code.
2. NEMOs shall ensure that the Price Coupling Algorithm and the Continuous Trading Matching Algorithm produce the results identified in Articles 46 and Article 60 respectively.
3. NEMOs shall develop and implement back-up procedures to comply with their obligation specified in paragraph 2.

Article 43

ALGORITHM DEVELOPMENT

1. No later than **than six months** after the entry into force of this Network Code:
  - (a) All TSOs shall jointly provide **all** NEMOs with a set of requirements related to efficient Capacity Allocation to enable the development of the Price Coupling Algorithm and the development of the Continuous Trading Matching Algorithm (TSOs). These requirements shall specify the functionalities and performance, including deadlines for the delivery of **single day ahead and intraday** coupling results and details of the Cross Zonal Capacity and Allocation Constraints which shall be respected; and
  - (b) all NEMOs shall jointly provide **all** NEMOs with a set of requirements related to efficient Matching to enable the development of the Price Coupling Algorithm and the Continuous Trading Matching Algorithm.
2. Any proposal provided pursuant to paragraph 1 shall facilitate the achievement of the objectives specified in Article 4 and 45 in the case of the Price Coupling Algorithm, and in Article 4 and 59 in the case of the Continuous Trading Matching Algorithm and the Objectives of this Network Code.
3. No later than **three months** after the delivery of the TSO and NEMO requirements pursuant to paragraph 1, all NEMOs shall develop a proposal to meet these requirements. This proposal shall include the latest time by when **all** NEMOs have to submit received orders required to perform the MCO function.
4. This proposal shall be submitted to all TSOs and **all** NEMOs. If additional time is required to refine this proposal, all NEMOs shall work together supported by **all** TSOs for a period of not more than **two months** to refine the proposal such that it better meets the requirements specified in paragraphs 1 and 2.

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5. All TSOs and all NEMOs shall submit refined proposal developed pursuant to paragraph 4 to NRAs approval.

[old article 44]

6. All TSOs and all NEMOs shall periodically, and at least every two years, review the operation of the Price Coupling Algorithm and Continuous Trading Matching Algorithm to ensure both continue to facilitate the objectives of this Network Code and of the Price Coupling Algorithm as specified in Article 45 and of the Continuous Trading Matching Algorithm as specified in Article 59.

## CHAPTER 5

### THE SINGLE DAY AHEAD COUPLING

#### SECTION 1

#### THE PRICE COUPLING ALGORITHM

##### Article 45

#### OBJECTIVES OF THE PRICE COUPLING ALGORITHM

1. The Price Coupling Algorithm shall determine the results specified in Article 46(2), in a manner which:
  - (a) aims at maximising Economic Surplus for the single day-ahead coupling for the price coupled region for the subsequent trading day;
  - (b) uses the marginal pricing principle according to which all accepted bids will have the same price per Bidding Zone per Market Time Unit;
  - (c) facilitates efficient price formation;
  - (d) respects Cross Zonal Capacity and Allocation Constraints; and
  - (e) is repeatable and scalable;
2. The Price Coupling Algorithm shall be capable of being efficiently extended to a larger or smaller number of Bidding Zones.

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##### Article 46

#### INPUTS AND RESULTS OF THE PRICE COUPLING ALGORITHM

1. In order to determine results, the Price Coupling Algorithm shall use:
  - (a) Allocation Constraints in accordance with Article 28;
  - (b) validated Cross Zonal Capacity in accordance with Article 35; and
  - (c) Orders in accordance with Article 47.
2. The Price Coupling Algorithm shall, at least, simultaneously determine the following information for each Market Time Unit:
  - (a) a single Clearing price for each Bidding Zone and Market Time Unit in Euros/MWh;
  - (b) a single Net Position for each Market Time Unit; and
  - (c) the execution status of Orders.

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3. ~~All~~ NEMOs shall ensure the accuracy and efficiency of results produced by the single Price Coupling Algorithm.
4. ~~All~~ NEMOs shall ensure that results are compliant with the objectives of this Network Code.
5. ~~All~~ TSOs shall verify that the results of the Price Coupling Algorithm are consistent with the Cross Zonal Capacity and Allocation Constraints.

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**Article 47**

**PRODUCTS ACCOMMODATED**

1. All NEMOs shall ensure that Orders submitted to the Price Coupling Algorithm shall be expressed in terms of Euros and make reference to Market Time.
2. All NEMOs shall ensure that the Price Coupling Algorithm is able to accommodate Orders covering one Market Time Unit and multiple Market Time Units.
3. All NEMOs shall periodically, but at least every **two years**, consult with:
  - (a) Market Participants to ensure that available products reflect their needs;
  - (b) All TSOs to ensure products are reflective of System Security; and
  - (c) All NRAs to ensure that the available products promote the objectives of this Network Codeand take action to rectify the situation if this is not the case.

**Article 48**

**MAXIMUM & MINIMUM PRICES**

1. All NEMOs shall in cooperation with the relevant TSOs, within **three months** after entry into force of this regulation, develop a proposal on harmonised maximum and minimum bid prices to be applied in all Bidding Zones. The proposal shall include an implementation date.
2. All NEMOs shall submit the proposal for regulatory approval.
3. After receiving a decision from the NRAs of the concerned Member States, all NEMOs shall inform the relevant TSOs of the decision without undue delay.

**Article 49**

**PRICING OF DAY AHEAD CROSS ZONAL CAPACITY**

1. Day Ahead Cross Zonal Capacity shall be priced:
  - (a) reflecting Market Congestion; and
  - (b) as the difference between the corresponding Day Ahead Clearing Price of the relevant Bidding Zones.
2. No charges shall be applied to Day Ahead Cross Zonal Capacity except for those priced in accordance with paragraph 1. In particular no surcharges, imbalance fees or additional fees shall be levied.

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**Article 50**

**METHODOLOGY FOR THE CALCULATION OF SCHEDULED EXCHANGES RESULTING FROM THE SINGLE DAY AHEAD COUPLING**

1. **No later than** twelve months after the entry into force of this Network Code, the relevant TSOs shall submit a proposal for a common methodology to be used in calculating Scheduled Exchanges resulting from the Single Day Ahead Coupling to NRAs and the Agency.
2. The methodology shall describe the calculation and shall detail the data which must be provided by the relevant NEMOs to the Scheduled Exchange Calculator pursuant to Article GC 5 (f) and the timescales for delivering such information. The timescale for delivering information shall be no later than 15.30 market time day ahead.
3. The calculation shall be based on Net Positions as specified in Article 46(2)(b).

**[old article 51]**

4. Where Scheduled Exchanges are required by TSOs, the relevant TSOs shall periodically, but at least every second year, review the methodology for calculating Scheduled Exchanges resulting from the Single Day Ahead Coupling.

**Article 52**

**ESTABLISHMENT OF FALLBACK PROCEDURES**

1. Each TSO in coordination with all TSOs of the capacity calculation region shall ensure that robust and timely fallback procedures are in place to ensure efficient, transparent and non-discriminatory Capacity Allocation in the event that the Single Day Ahead Coupling process is unable to produce results.
2. Prior to the commencement of the Single Day Ahead Coupling process, as defined in Articles 53 to 58, participating TSOs shall facilitate the development of one or more fallback procedures capable of effectively dealing with a range of foreseeable events which may prevent the production of results and Allocation of capacity according to this Network Code. Fallback procedures shall, as far as reasonably practicable, facilitate the achievement of the objectives of this Network Code.

**SECTION 3**

**THE SINGLE DAY AHEAD COUPLING COUPLING PROCESS**

**Article 53**

**PROVISION OF INPUT DATA**

1. Each Coordinated Capacity Calculator shall ensure that Cross Zonal Capacities and Allocation Constraints shall be provided to relevant NEMOs in time to ensure the publication of the Cross Zonal Capacities and Allocation Constraints to the market no later than 11.00 Market Time day ahead.
2. If a Coordinated Capacity Calculator is unable to provide for Cross Zonal Capacities and Allocation Constraints one hour prior to the Day Ahead Market Gate Closure Time, that Coordinated Capacity

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Calculator shall notify the relevant NEMOs. These NEMOs shall immediately publish a notification to Market Participants.

3. In such cases, Cross Zonal Capacities and Allocation Constraints shall be provided by this Coordinated Capacity Calculator no later than the Day Ahead Market Gate Closure Time.

**Article 54**

**OPERATION OF THE SINGLE DAY AHEAD COUPLING**

1. The Day Ahead Market shall open no later than 11.00 Market Time day ahead. **1 hour before**
2. The Day Ahead Market Gate Closure Time in each Bidding Zone shall be noon Market Time day ahead.
3. All Orders shall be submitted by Market Participants in accordance with Article 46, to **relevant** NEMOs before Day Ahead Market Gate Closure Time.
4. All NEMOs shall submit Orders received in accordance with paragraph 2 to perform the MCO functions in accordance with Article GC 4 no later than a time specified by all NEMOs in the proposal for a single Price Coupling Algorithm according to Article 43(3).
5. MCO functions shall be performed in accordance with Article GC 4 ensuring anonymity of submitted Orders.

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**Article 55**

**DELIVERY OF RESULTS**

1. All NEMOs in their MCO function shall deliver the Single day-ahead coupling results:
  - (a) specified in Article 46(2)(a) and 46(2)(b), to all TSOs, **all** Coordinated Capacity Calculators and all NEMOs; and
  - (b) specified in Article 46(2)(c) to all NEMOs.simultaneously and no later than the time specified by **all** TSOs in their requirements according to Article 43(1)(a).
2. Each TSO shall verify that the Single day-ahead coupling results of the Price Coupling Algorithm specified in Article 46(2)(b) have been calculated in accordance with the Allocation Constraints and validated Cross Zonal Capacity.
3. Each NEMO shall verify that the Single day-ahead coupling results of the Price Coupling Algorithm specified in Article 46(2)(c) have been calculated in accordance with the Orders submitted in accordance with Article 54(3).
4. All NEMO shall inform Market Participants on the execution status of their orders without undue delay.

**Article 56**

**CALCULATION OF SCHEDULED EXCHANGES RESULTING FROM THE SINGLE DAY AHEAD COUPLING**

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1. ~~Each~~ Scheduled Exchange Calculator shall calculate Scheduled Exchanges between bidding zones for each Market Time Unit in accordance with the methodology set forth in accordance with Article 50.
2. ~~Each~~ Scheduled Exchange Calculator shall notify relevant NEMOs, Central Counter Parties, Shipping Agents, and TSOs of the agreed Scheduled Exchanges.

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Article 57

INITIATION OF FALLBACK PROCEDURES

1. In the event that all NEMOs are unable to deliver part or all of the results of the Price Coupling Algorithm by the time specified in accordance with Article 43(1)(a), fallback procedures as established in accordance with Article 52 shall be followed.
2. In cases where all NEMOs are unable to deliver part or all of the results, all NEMOs shall notify all TSOs ~~and all~~ NEMOs as soon as an issue is identified. All NEMOs shall provide a notification to Market Participants that fallback procedures may be initiated without undue delay

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CHAPTER 6

THE SINGLE INTRADAY COUPLING

SECTION 1

OBJECTIVES, FUNCTIONALITY AND RESULTS FROM THE SINGLE INTRADAY COUPLING

Article 59

OBJECTIVES OF THE CONTINUOUS TRADING MATCHING ALGORITHM

1. As from the Intraday Cross Zonal Gate Opening Time and prior to the Intraday Cross Zonal Gate Closure Time, the Continuous Trading Matching Algorithm shall determine which Orders to select for Matching such that it:
  - (a) ~~Aims at maximising~~ Economic Surplus for the single intraday coupling per Trade for the Intraday timeframe by Allocating Capacity to Orders for which it is feasible to Match in accordance with the price and time of submission;
  - (b) respects Allocation Constraints provided in accordance with Article 66(4);
  - (c) respects Cross Zonal Capacity as specified in Article 66(1);
  - (d) respects requirements for the delivery of results as referred to in Article 66; and
  - (e) is repeatable and scalable.
2. The Continuous Trading Matching Algorithm shall produce the results specified in Article 60 and meet the capabilities and functionalities of products provided in accordance with Article 61.

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Article 60

INPUTS AND RESULTS OF THE CONTINUOUS TRADING MATCHING ALGORITHM

1. All NEMOs (all TSOs) as part of their MCO function shall ensure that the Continuous Trading Matching Algorithm shall perform the Matching of Orders resulting in, at a minimum:
  - (a) the execution status of Orders and prices per Trade; and

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(b) a single Net Position for each Market Time Unit within the Intraday Market.

2. ~~All~~ NEMOs (TSOs) shall ensure the accuracy and efficiency of results produced by the single Continuous Trading Matching Algorithm.
3. ~~All~~ NEMOs (TSOs) shall ensure that results are compliant with the objectives of this Network Code and of Article 59.
4. ~~All~~ TSOs shall verify that the results of the Continuous Trading Matching Algorithm are consistent with the Cross Zonal Capacity and Allocation Constraints ~~in accordance with~~ Article 66.

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Article 61

PRODUCTS ACCOMMODATED

1. All NEMOs (TSOs) shall ensure that all Orders submitted to perform the MCO functions in accordance with Article GC 4 are expressed in terms of Euro and make reference to Market Time and Market Time Unit.
2. All NEMOs (TSOs) shall ensure that products shall be compatible with the characteristics of the Cross Zonal Capacity allowing them to match simultaneously ~~or shall be tradable only inside a Bidding Zone.~~ ~~[to be removed]~~
3. All NEMOs (TSOs) shall ensure that the Continuous Trading Matching Algorithm is able to accommodate Orders covering one Market Time Unit and multiple Market Time Units.
4. All NEMOs (TSOs) shall periodically, but at least every ~~two years~~, consult with:
  - (a) Market Participants to ensure that available products reflect their needs;
  - (b) ~~All~~ TSOs to ensure products are reflective of System Security; and
  - (c) ~~All~~ NRAs to ensure that the available products promote the objectives of this Network Code; ~~and~~ take action to rectify the situation if this is not the case.

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Article 62

MAXIMUM AND MINIMUM PRICES

1. ~~All NEMOs (TSOs) shall in cooperation with the relevant TSOs, within three months after entry into force of this regulation, develop a proposal on harmonised maximum and minimum bid prices to be applied in all Bidding Zones. The proposal shall include an implementation date.~~
2. ~~All~~ NEMOs (TSOs) shall submit the proposal ~~to all NRAs for~~ approval.
3. After receiving a decision ~~of~~ the NRAs of the concerned Member States, all NEMOs (TSOs) shall inform the relevant TSOs of the decision without undue delay.

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**Article 63**

**PRICING OF INTRADAY CAPACITY**

1. Intraday Cross Zonal Capacity shall be priced and in a manner which:
  - (a) reflects Market Congestion; and
  - (b) is based on actual Orders.
2. No later than **twenty four months** after the entry into force of this Network Code, all TSOs shall submit a proposal for a single methodology for the pricing of Intraday Cross Zonal Capacity compliant with the objectives of this Network Code to NRAs and the Agency.
3. In the period prior to the approval of the single methodology for the pricing of Intraday Cross Zonal Capacity, TSOs may propose Intraday Cross Zonal Capacity Allocation mechanism with reliable pricing consistent with the objectives of this Network Code and the principles specified in paragraph 1 for approval by the NRAs of the concerned Member States. **This mechanism shall ensure that the price of the Intraday Cross Zonal Capacity is available to the market participants at the moment of matching the orders.**
4. No charges shall be applied to Intraday Cross Zonal Capacity except for those priced in accordance with paragraphs 1 to 3. In particular no surcharges, imbalance fees or additional fees shall be levied.

**Article 64**

**METHODOLOGY FOR THE CALCULATION OF SCHEDULED EXCHANGES RESULTING FROM THE SINGLE INTRADAY COUPLING**

1. No later than **twelve months** after the entry into force of this Network Code, **relevant** TSOs shall submit a proposal for a common methodology to be used in calculating Scheduled Exchanges following the Matching of Orders in the Single Intraday Coupling to NRAs and the Agency.
2. The methodology shall describe the calculation and shall detail the data which must be provided, where required, by NEMOs (TSOs) to the Scheduled Exchange Calculator and the timescales for delivering such information.
3. The calculation of Scheduled Exchanges shall be based on the Net Positions as specified in Article 60(1)(b).

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**[old article 65]**

4. Where Scheduled Exchanges are required by TSOs, these TSOs shall periodically, but at least every two years, review the methodology for calculating Scheduled Exchanges resulting from the Single Intraday Coupling.

**SECTION 3**

**THE SINGLE INTRADAY COUPLING PROCESS**

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**Article 66**

**PROVISION OF INPUT DATA**

1. Each Coordinated Capacity Calculator shall ensure that Cross Zonal Capacities and Allocation Constraints shall be provided to the relevant NEMOs (TSOs) not later than 15 minutes prior to the Intraday Cross Zonal Gate Opening Time.
2. Each TSO shall notify the Coordinated Capacity Calculators of its Capacity Calculation Region if updates are required to the Cross Zonal Capacities and Allocation Constraints, due to operational changes on the Transmission System. The Coordinated Capacity Calculators shall then notify the relevant NEMOs (TSOs).
3. If any Coordinated Capacity Calculator is unable to comply with paragraph 1, that Coordinated Capacity Calculator shall notify the relevant NEMOs (TSOs). These NEMOs (TSOs) shall publish a notification to all Market Participants without undue delay.

**Article 67**

**OPERATION OF THE SINGLE INTRADAY COUPLING**

1. All TSOs shall be responsible for proposing the Intraday Cross Zonal Gate Opening and Intraday Cross Zonal Gate Closure Time.
2. The Intraday Cross Zonal Gate Closure Time shall be set to:
  - (a) maximize Market Participants' opportunities for adjusting their balances by trading in the Intraday timeframe as close as possible to real time; and
  - (b) provide TSOs and Market Participants sufficient time for their scheduling and balancing processes in respect of network and system security.
3. The Intraday Cross Zonal Gate Closure Time shall be at the maximum one hour prior to the start of the relevant Market Time Unit and shall respect the related balancing processes related to system security.
4. All Orders for a given Market Time Unit shall be submitted by Market Participants to relevant NEMOs (TSOs) before the Intraday Energy Gate Closure Time. Orders for a given Market Time Unit shall be submitted by all NEMOs (TSOs) for single matching in accordance with Article GC 4 before the Intraday Cross Zonal Gate Closure Time.
5. Orders matched in the single intraday coupling shall be firm.
6. MCO functions shall be performed ensuring anonymity of the Orders submitted to the Shared Order Book.

**Article 68**

**DELIVERY OF RESULTS**

1. All NEMOs (TSOs) in their MCO function shall deliver the Continuous Trading Matching Algorithm results:
  - (a) specified in Article 60(1)(a) to all NEMOs (TSOs). In the event that all NEMOs (TSOs), for reasons outside his responsibility, is unable to deliver these Continuous Trading Matching Algorithm results, they shall notify all NEMOs (TSOs).

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- (b) specified in Article 60(1)(b) to all TSOs (and NEMOs). In the event where all NEMOs (TSOs), for reasons outside his responsibility, is unable to deliver these Continuous Trading Matching Algorithm results, all NEMOs (TSOs) shall notify as soon as reasonably practicable all TSOs, ~~(all NEMOs)~~ and ~~each~~ Scheduled Exchange Calculator. All TSOs and the Scheduled Exchange Calculators shall notify concerned ~~market participants~~.
2. All NEMOs (TSOs) shall without undue delay send the necessary information to Market Participants to ensure that the actions specified in Articles ~~73 and~~ 75 can be undertaken.

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Article 69

CALCULATION OF SCHEDULED EXCHANGES RESULTING FROM THE SINGLE INTRADAY COUPLING

1. ~~Each~~ Scheduled Exchange Calculator shall calculate Scheduled Exchanges between bidding zones for each Market Time Unit in accordance with the methodology set forth in accordance with Article 64.
2. ~~Each~~ Scheduled Exchange Calculator shall notify the relevant (NEMOs), Central Counter Parties, Shipping Agents, and TSOs of the agreed Scheduled Exchanges.

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Article 70

PUBLICATION OF MARKET INFORMATION

1. Each NEMO (TSO) shall publish, as soon as Matched, at a minimum, the execution status of Orders and prices per Trade of the Continuous Trading Matching Algorithm in accordance with Article 60(1)(a).
2. Each NEMO (TSO) shall ensure that information published pursuant to paragraph 1 is made publicly available in an accessible format for a period of not less than 5 years (where such historical data exists).

Article 71

COMPLEMENTARY REGIONAL AUCTIONS

1. ~~Relevant~~ TSOs (and NEMOs) may submit a common proposal for design and implementation of complementary intraday regional auctions.
2. Complementary intraday regional auctions may be implemented inside and between bidding zones in addition to pan-European Intraday solution. In order to perform the intraday regional auctions, the continuous trading inside and between the relevant bidding zones can be stopped for a limited period of time before the Intra Day Cross Zonal Gate Closure Time, which shall not exceed the minimum time required to perform the auction and in any case ten minutes.
3. Relevant NRAs may approve the proposal for complementary intraday regional auctions if the following conditions are met:
- (a) Regional auctions shall not have an adverse impact on the liquidity of the pan-European Intraday solution;
  - (b) All Cross Zonal Capacity shall be allocated through the Capacity Management Module;
  - (c) The regional auction shall not introduce any undue discrimination between Market Participants from adjacent regions;

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- (d) The timescales for regional auctions shall be consistent with the Single Intraday Coupling to enable the Market Participants to trade as close as possible to real-time; and
  - (e) NRAs shall have consulted the Market Participants in the concerned Member States. timescales
4. The NRAs of the concerned Member States shall periodically, but at least every 2 years, review the compatibility between any regional solutions and Single Intraday Coupling to ensure the conditions above continue to be fulfilled.

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CHAPTER 7

CLEARING AND SETTLEMENT FOR THE SINGLE DAY AHEAD AND INTRADAY COUPLING

[Article 72]

Article 73

CLEARING AND SETTLEMENT

1. The Central Counter Parties pursuant to Article GC 3(1)(g) shall ensure the clearing and settlement of all Matched Orders in a timely manner. The Central Counter Parties shall act as the counterparty to Market Participants for all their Trades with regard to the financial rights and obligations arising from these Trades.

2. Each Central Counter Party shall maintain anonymity between Market Participants.

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[Article 74]

3. Each Central Counter Party shall act as counterparty to each other for the exchange of energy between Bidding Zones with regard to the financial rights and obligations arising from these energy exchanges.

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4. Such exchanges shall take into account:

- (a) Net Positions as defined in Articles 46(2)(b) and 60(1)(b); and /or
- (b) Scheduled Exchanges as defined in Articles 56 and 69.

5. Each Central Counter Party shall ensure that for each time period:

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- (a) across all Bidding Zones, taking into account, where appropriate, Allocation Constraints, there are no deviations between the sum of energy transferred out of all Bidding Zones and the sum of energy transferred into all other Bidding Zones; and
  - (b) electricity exports and electricity imports between Bidding Zones equal each other. Deviations may only result from considerations of, Allocation Constraints, where appropriate.
6. Notwithstanding paragraph 3 above, a Shipping Agent may act as a counterparty between different Central Counter Parties for the exchange of the energy. Such cases shall be subject to the conclusion of a specific agreement between concerned parties. If no agreement is found, the shipping arrangement shall be decided by the NRAs responsible for the bidding zones between which the clearing and settlement of the exchange of the energy is needed.

7. All Central Counter Parties or Shipping Agents shall collect Congestion Incomes arising from the Trades specified in Article 53 to 55 for the Single Day Ahead Coupling and in accordance with Articles 66 to 68 for the Single Intraday Coupling.

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8. All Central Counter Parties or Shipping Agents shall ensure that Congestion Incomes resulting from the Trades set out in paragraph 5 are provided to the Congestion Income Distributors no later than two weeks after the date of settlement.
9. In the event that timing of payments is not harmonized between two Bidding Zones, concerned Member States shall ensure an entity is appointed to manage the timing mismatch and bear related costs.

Article 75

CONGESTION INCOME DISTRIBUTION

The Congestion Income Distributors pursuant to Article GC 5 (1)(j) shall distribute Congestion Incomes in accordance with the methodology(ies) established pursuant to Article 81 as soon as reasonably practicable and no later than one week after the transfer of Congestion Incomes pursuant to Article 74(6).

CHAPTER 8

FIRMNESS OF ALLOCATED CROSS ZONAL CAPACITY

Article 76

THE DAY AHEAD FIRMNESS DEADLINE

1. **No later than** six months after the entry into force of this Network Code, all TSOs shall develop a proposal for a single Day Ahead Firmness Deadline, which shall not be shorter than half hour before the Day Ahead Market Gate Closure Time.

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Article 78

FIRMNESS OF DAY AHEAD CAPACITY AND ALLOCATION CONSTRAINTS

1. Prior to the Day Ahead Firmness Deadline each Coordinated Capacity Calculator may adjust Cross Zonal Capacity and each TSOs may adjust Allocation Constraints provided to relevant NEMOs.
2. After the Day Ahead Firmness Deadline all Cross Zonal Capacity and Allocation Constraints shall be firm for Day Ahead capacity allocation, unless the requirements of Article 53(3) are met. In such cases, Cross Zonal Capacity and Allocation Constraints shall be firm as soon as they are submitted to relevant NEMOs.
3. After the Day Ahead firmness deadline Cross Zonal Capacity which has not been allocated may be adjusted for subsequent allocations.

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Article 79

FIRMNESS OF INTRADAY CAPACITY

Cross Zonal Capacity shall be firm as soon as it has been allocated.

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Article 80

FIRMNESS IN THE CASE OF FORCE MAJEURE OR EMERGENCY SITUATIONS

1. In the event of Force Majeure situation or an Emergency Situation, each TSO shall have the right to curtail Cross Zonal Allocated Capacities. In all cases, curtailment shall be undertaken in a coordinated manner having liaised with all directly affected TSOs.
2. The TSO, which invokes Force Majeure or an Emergency Situation, shall publish a notification describing the nature of Force Majeure or the Emergency Situation and its probable duration. This notification shall be made available through NEMOs to concerned Market Participants. In case of capacities allocated explicitly to Market participants, the TSO which invokes the Force Majeure or the Emergency Situation, shall send a notification directly to those of its contractual parties which are holders of cross-zonal capacity for the relevant market timeframe.
3. Allocated Capacities, which are curtailed due to Force Majeure or an Emergency Situation, shall be reimbursed or compensated for the period of Force Majeure or Emergency Situation, by the TSO, which invokes Force Majeure or Emergency Situation, in accordance with the following arrangements:
  - (a) in the event of Implicit Allocation, Central Counter Parties or Shipping Agents shall not be subject to financial damage or financial benefit arising from any imbalance created by such curtailment;
  - (b) in the event of Force Majeure and when capacities were allocated via Explicit Allocation, Market Participants shall be entitled to reimbursement of the price paid for the capacity during the Explicit Allocation process; or
  - (c) in the event of Emergency Situation and when capacities were allocated via Explicit Allocation, Market Participants shall be entitled to compensation equal to the price difference of relevant markets between the concerned Bidding Zones in the relevant time frame. or
  - (d) in the event of Emergency Situation and when capacities were allocated via Explicit Allocation, but Bidding Zone price is not calculated in at least one of the two relevant Bidding Zones in the relevant time frame, Market Participants shall be entitled to reimbursement of the price paid for the capacity during the Explicit Allocation process.
4. The TSO which invokes Force Majeure or an Emergency Situation shall make every possible effort to limit the consequences and duration of the Force Majeure situation or Emergency Situation.

5. [The recognition of an event as Force Majeure shall be done by means of an NRA formal declaration upon TSO request.]

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CHAPTER 9

Article 81

CONGESTION INCOME DISTRIBUTION METHODOLOGY

1. No later than twelve months after the entry into force of this Network Code, all TSOs shall develop a proposal for a Methodology for sharing Congestion Income.
2. The methodology developed pursuant to paragraph 1 shall:
  - (a) facilitate the efficient long-term operation and development of the pan-European Interconnected System and the efficient operation of the pan-European electricity market;
  - (b) comply with the general principles of congestion management as specified in Article 16 of Regulation (EC) No 714/2009;
  - (c) allow for reasonable financial planning;
  - (d) be compatible across timeframes; and

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- (e) establish arrangements to share Congestion Income deriving from transmission assets owned by parties other than TSOs.

**CHAPTER 10**

**Article 83**

**REDISPATCHING OR COUNTERTRADING COST SHARING METHODOLOGY**

1. No later than **eighteen months** after the entry into force of this Network Code, all TSOs of each Capacity Calculation Region shall develop and propose a common methodology for Redispatching or Countertrading cost sharing for regulatory approval.
2. The Redispatching or Countertrading cost sharing methodology shall include actions of Cross Border Relevance.
3. Redispatching or Countertrading costs eligible for the cost sharing between relevant TSOs shall be defined in a transparent and auditable manner.
4. Redispatching or Countertrading cost sharing methodology shall at least include the following:
  - (a) a rule to define which costs, incurred from using remedial actions with costs considered in the capacity calculation, where a common framework on the use of such actions has been established, are eligible for sharing between all TSOs of Capacity Calculation Region in accordance with the Capacity Calculation Methodology pursuant to Article 22;
  - (b) a rule to define which costs, incurred from using redispatching or countertrading to guarantee the Firmness of the Cross Zonal Capacity are eligible for sharing between all TSOs of Capacity Calculation Region in accordance with the Capacity Calculation Methodology pursuant to Article 22; and
  - (c) rules for the region wide cost sharing as determined under (a) and (b).
5. A methodology developed pursuant to paragraph 1 shall be accompanied by:
  - (a) a mechanism to verify between the involved TSOs the actual need for Redispatching or Countertrading;
  - (b) an ex-post mechanism to monitor the usage of the Remedial actions with costs;
  - (c) a mechanism to assess the impact of the actions, based on the system security and economic criteria;
  - (d) a process allowing improvements of the actions; and
  - (e) a process allowing monitoring by all NRAs of each Capacity Calculation Region.
6. A methodology developed pursuant to paragraph 1 shall respect the following principles:
  - (a) provide correct incentives to manage congestions including remedial actions and investments;
  - (b) be consistent with the responsibilities and liabilities of the involved TSOs;
  - (c) ensure a fair distribution of costs and benefits between the involved TSOs;
  - (d) be consistent with other related mechanisms including at least:
    - The Congestion Income distribution arrangements as specified in Article 81; and
    - The inter TSO compensation mechanism as specified in Article 13 of Regulation (EC) No 714/2009 and Regulation (EC) No 838/2010.
- (e) facilitate the efficient long-term development and operation of the pan-European Interconnected System and the efficient operation of the pan-European electricity market;
- (f) facilitate the achievement of the general principles of congestion management as specified in Article 16 of Regulation (EC) No 714/2009;
- (g) allow for reasonable financial planning;
- (h) be compatible across timeframes; and

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- (i) respect the principles of transparency and non-discrimination.
- 7. All TSOs of each Capacity Calculation Region shall progressively harmonize the Redispatching or Countertrading cost sharing methodologies across Capacity Calculation Regions.

**CHAPTER 11**

**CAPACITY ALLOCATION AND CONGESTION MANAGEMENT COSTS RECOVERY**

**Article 85**

**GENERAL PROVISIONS**

- 1. In line with Article 37(1)(a) of Regulation 2009/72/EC, the costs related to the obligations allocated to TSOs in accordance with Article CG 5, including but not limited to the costs specified under Article 83 and Articles 86 to 90, shall be assessed by NRAs. Costs assessed as reasonable, efficient and proportionate shall be recovered via network tariffs or appropriate mechanisms as determined by NRAs.
- 2. Member States' share of the common costs pursuant to GC 7(2)(a), regional costs pursuant to GC 7 (2)(b) and the national costs pursuant to GC 7 (2)(c) assessed as reasonable, efficient and proportionate shall be recovered via NEMO fees, network tariffs or other appropriate mechanism as determined by NRAs, in line with Article 37(1)(a) of Regulation 2009/72/EC,.
- 3. If requested to do so by NRAs, any party defined in Article 1, shall, within **three months** of such a request, provide such information as requested by NRAs to facilitate the assessment of the costs incurred.

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**Article 86**

**COSTS OF ESTABLISHING, AMENDING AND OPERATING SINGLE DAY AHEAD AND INTRADAY COUPLING**

- 1. All NEMOs shall bear:
  - (a) the common, regional and national costs of establishing, updating or further developing the Price Coupling Algorithm for the Single Day Ahead Coupling and Single Day Ahead Coupling Processes;
  - (b) the common, regional and national costs of establishing, updating or further developing the Continuous Trading Matching Algorithm and Single Intra-day Coupling;
  - (c) the common, regional and national costs of operating the Single Day Ahead and Intra-day Coupling.
- 2. TSOs, subject to agreement with relevant NEMOs, may make a contribution to the costs described in paragraph 1. In such a case, TSOs shall **within two months** of receiving a forecast from the relevant NEMOs be entitled to provide a cost contribution proposal to the concerned NRAs for approval.
- 3. In this case relevant NEMOs shall, when submitting a proposal pursuant to paragraph 2, provide a forecast to TSOs for each of the costs described in paragraph 1.
- 4. Relevant NEMOs shall be entitled to recover costs pursuant to paragraph 1 which have not been borne by TSOs pursuant to paragraph 2 by means of fees or other appropriate mechanisms only if they are reasonable and proportionate.

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**Article 89**

**CLEARING AND SETTLEMENT COSTS**

1. All costs incurred by Central Counter Parties shall be recoverable by means of fees or other appropriate mechanisms if they are reasonable and proportionate.
2. The Central Counter Parties and Shipping Agents shall seek efficient clearing and settlement arrangements avoiding unnecessary costs, reflecting the risk incurred. The Cross Border clearing and settlement arrangements shall be subject to approval of the relevant NRAs.

**Article 87**

**COSTS OF ESTABLISHING AND OPERATING COORDINATED CAPACITY CALCULATION PROCESSES**

1. Each TSO shall bear the costs related to the provision of inputs to the Capacity Calculation Process.
2. All TSOs shall bear costs related to the merging of the individual grid models.
3. All TSOs of each Capacity Calculation Region shall bear costs related to the establishment and operation of the Coordinated Capacity Calculators..
4. Any costs incurred by Market Participants in meeting the requirements of this Network Code shall be borne by those Market Participants.

**[Article 87]**

**Article 90**

**COSTS OF ENSURING FIRMNESS**

The costs of ensuring firmness in accordance with Articles 76 to 80 shall be borne by relevant TSOs. These costs shall include, but shall not be limited to: the costs of Redispatching, Countertrading, correcting imbalances, incurred market mechanism imbalance costs and compensation mechanisms associated with ensuring firmness.

**TITLE 4**

**TRANSITIONAL ARRANGEMENTS**

**CHAPTER 1**

**TRANSITIONAL INTRADAY ARRANGEMENTS**

**[Article 91]**

**Article 92**

**EXPLICIT ALLOCATION**

1. Relevant TSOs shall provide Explicit Allocation via the Capacity Management Module on those Bidding Zone Borders where they are requested to do so by NRAs of the Member State concerned.
2. In such cases, these TSOs shall publish the conditions that must be fulfilled by Market Participants to participate in the Explicit Allocation. These conditions shall be subject to approval by NRAs of the Member States concerned.

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3. The Capacity Management Module shall avoid discrimination when concurrently allocating implicitly and explicitly capacity. The Capacity Management Module shall determine which Orders to select for Matching and which explicit capacity requests to accept, according to a compatible ranking of price and time of entrance.

**Article 93**

**REMOVAL OF EXPLICIT ALLOCATION**

1. Relevant NEMOs shall cooperate closely with relevant TSOs and shall consult Market Participants in order to translate the needs of Market Participants linked with Explicit Capacity Allocation rights into non-standard Intraday Products.
2. Prior to the removal of Explicit Allocation, concerned NRAs shall organize a consultation to assess whether the proposed non-standard Intraday Products fulfil the Market Participants' needs for Intraday trading.
3. Concerned NRAs shall approve the introduction of non-standard Products and the removal of Explicit Allocation.

**CHAPTER 2**

**PROVISIONS OF THE TRANSITIONAL INTRADAY ARRANGEMENTS**

**Article 94**

**GENERAL PROVISIONS**

1. Market Participants shall ensure the completion of nomination, clearing and settlement related to Explicit Allocation of Cross Zonal Capacity.
2. Market Participants shall fulfil any financial obligations, relating to clearing and settlement arising from Explicit Allocation.
3. Participating TSOs shall publish the interconnections where Explicit Allocation is applicable, the Cross Zonal Capacity for Explicit Allocation and other relevant information.

**Article 95**

**EXPLICIT REQUESTS FOR CAPACITY**

The explicit request for cross zonal capacity can only be submitted by a Market Participant for an interconnection where the Explicit Allocation is applicable. For each explicit request for capacity the Market Participant shall submit the volume and the price to the Capacity Management Module. The price and volume of Explicit Allocated Capacity shall be made publicly available.

**CHAPTER 3**

**ISLAND SYSTEMS WITH CENTRAL DISPATCH**

**Article 96**

**TRANSITIONAL ARRANGEMENTS FOR ISLAND SYSTEMS WITH CENTRAL DISPATCH**

1. The requirements of this Network Code shall not apply in Ireland and Northern Ireland, operating island systems with central dispatch, until 31 December 2016.

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2. From the date of the entry into force of this Network Code until 31 December 2016 TSOs referred to in paragraph 1 shall implement arrangements intended to ensure full implementation of and compliance with this Network Code by 31 December 2016. Those arrangements shall:
  - (a) facilitate the transition to the full implementation of and compliance with this Network Code;
  - (b) be justified on the basis of a cost-benefit analysis;
  - (c) not unduly affect other jurisdictions;
  - (d) guarantee a reasonable degree of integration with the markets in adjacent jurisdictions;
  - (e) provide for at least:
    - allocation of interconnector capacity in a day-ahead explicit auction and in at least two intraday implicit auctions;
    - joint nomination of interconnection capacity and energy at the day-ahead timeframe;
    - application of the “Use-It-Or-Lose-It” or “Use-It-Or-Sell-It” principle, as specified in Article 2.5 of Congestion Management Guidelines which form an Annex I to the Regulation (EC) No 714/2009, to capacity not used at the day-ahead timeframe.
  - (f) ensure fair and non-discriminatory pricing of interconnector capacity in the intraday implicit auctions;
  - (g) put in place fair, transparent and non-discriminatory compensation mechanisms for ensuring firmness;
  - (h) set out a detailed roadmap, approved by the regulatory authorities for Ireland, Northern Ireland and Great Britain, of milestones for achieving full implementation of and compliance with this Network Code;
  - (i) be subject to a consultation process involving all relevant parties and give utmost consideration to the consultation’s outcome.
3. NRAs for Ireland, Northern Ireland and Great Britain shall provide to the Agency regularly, but at least quarterly, or upon the Agency’s request, any information required for assessing the transitional arrangements for the electricity market on the island of Ireland and the progress towards achieving full implementation of and compliance with this Network Code.

## TITLE 5

### FINAL PROVISIONS

#### Article 97

#### ENTRY INTO FORCE

1. This Network Code shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.
2. This Network Code shall be binding in its entirety and directly applicable in all Member States.

## II. Guideline on Governance rules concerning the Network Code on Capacity Allocation and Congestion Management

### Article GC 1 NEMOs, designation and de-designation

1. Each Member State electrically connected to a bidding zone of another Member State shall ensure that one or more NEMOs are designated **within 6 month after the entry into force of this** regulation to perform the single day-ahead (and intra-day coupling), based exclusively on the designation criteria listed in Article GC2. The same designation criteria shall apply regardless of whether one or more NEMOs are appointed. All requests for designation of new NEMOs should be treated in a non-discriminatory manner. Applicants may apply to become NEMOs in any one or several EU Member States. At least one NEMO needs to be designated in each bidding zone of a Member State.
2. In designating NEMOs, the designating entity must assess the fulfilment of the NEMO candidate the designation criteria in Article GC 2. If not done by the NRA, the designation shall be subject to an opinion of the NRA, assessing to what extent each NEMO candidate fulfils the designation criteria in Article GC2. NEMOs shall be designated for a period of **4 years**.
3. A NEMO designated in one Member State shall have the right to offer day-ahead (and intraday) trading services with delivery in another Member State. The trading rules in the latter Member State apply without a need for designation as a NEMO in this Member State. By way of exception, the Member State where delivery takes place may refuse these trading services in case the Member State can establish that these trading services and the trading rules cannot be made compatible. In such cases, the Member State shall notify the refusal to the NEMO with appropriate justification and the NRA shall investigate and issue an opinion to the Member State, the Agency and the European Commission on how to make them compatible.
4. In case a national legal monopoly for day-ahead and intra-day trading activities already exists in a Member State at the time of the **adoption** of this Regulation:
  - a. The Member State may refuse the designation of more than one NEMO per bidding zone. If there are several applicants to be designated as a single NEMO, the Member State shall designate the applicant which fulfils best the criteria listed in Article GC2. If Member States refuse the designation of more than one NEMO per bidding zone, the NRA shall fix or approve sufficiently in advance of their entry into force the fees or specify the methodologies used to calculate the fees related to trading in the day-ahead and intra-day markets.
  - b. The Member State may refuse trading services offered by a NEMO designated in another Member State. The protection of existing power exchanges from economic disadvantages through competition cannot justify a refusal.
5. Two years after **adoption** of this Regulation, the Commission shall draft a report on the development of single day ahead and intraday coupling, in particular the development of competition between NEMOs. On the basis of the report, and in absence of justification for the continuation of national legal monopolies, the Commission may consider appropriate legislative measures in order to increase competition and trade between and within Member States.
6. NRAs shall monitor compliance of the NEMOs with the designation criteria in accordance with Article GC 2. A Member State shall ensure that the designation is revoked where the NEMO fails to maintain compliance with the criteria and is not able to restore compliance in a period of **[six months]** from the notification of the failure to the NEMO by the NRA.

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7. The Member States shall inform the Agency on the designation of NEMOs and the Agency shall maintain a list of designated NEMOs on its website.

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Article GC 2

NEMO Designation Criteria

1. The designation criteria pursuant to paragraph 2 of this Article shall ensure that competition between NEMOs is organized in a fair and non-discriminatory manner, in particular allowing for non-discriminatory conditions for entry of NEMOs.

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2. The applicant to be designated as a NEMO shall:

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- a) have or contract adequate resources for a common, coordinated and compliant operation of a single day-ahead coupling (or a single intra-day coupling), including resources necessary for the fulfilment of the NEMO functions, financial resources, necessary information technology, technical infrastructure and operational procedures or they shall provide necessary proof that they are able to make these resources available within a reasonable preparatory period.
- b) be able to ensure that market participants have equally open access to relevant information regarding the NEMO functions in accordance to Article GC 3. .
- c) are cost-efficient with respect to single day-ahead (or intra-day coupling).
- d) have appropriate independence from market participants
- e) be able to treat all market participants in a non-discriminatory way and be subject to appropriate market surveillance.
- f) have in place appropriate transparency and confidentiality agreements with market participants and the TSOs; and,
- g) be able to provide the necessary clearing services.

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Article GC 3

NEMO functions

1. All NEMOs (TSOs) shall be responsible in particular for the following functions regarding single day-ahead coupling (and single intra-day coupling):

- a) Acting as a market operator in national or regional markets including receiving orders from market participants, having overall responsibility for matching and allocating orders in accordance with the single day-ahead coupling (and single intra-day coupling) results, publishing prices and settling and clearing the contracts according to relevant participant agreements and regulations,
- b) Establishing requirements for the single day-ahead coupling (and single intra-day coupling) MCO functions and Price Coupling Algorithm for all aspects related to electricity market functioning in accordance with paragraph 2 and Article 43,
- c) Implementing and operating in coordination with other NEMOs the MCO functions pursuant to paragraph 2,
- d) Making anonymous and sharing the received order information necessary to perform the MCO functions in accordance with paragraph 2 and Articles 47 and 61,
- e) Assessing the results calculated by the MCO functions, allocating the orders based on these results, validating the results as final in case they are considered correct and taking responsibility for them in accordance with Articles 55 and 68,
- f) Informing the market participants on the results of their orders in accordance with Articles 58 and 68,

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- g) Acting as Central Counter Parties for clearing and settling the commercial cross-zonal transactions resulting from the single day-ahead coupling (and intra-day coupling) in accordance with Article 73,
- h) In cooperation with all TSOs, implementing and operating backup procedures for national or regional market operation, consistent with overall procedures, if no results are available from the MCO functions in accordance with Article 42,
- i) providing input to the committees established under Articles GC 10 to GC 13 supporting the governance and decision making on single day-ahead coupling (and single intra-day coupling), and
- j) providing the single day-ahead coupling (and single intra-day coupling) cost forecasts and cost information to relevant NRAs and TSOs where NEMO or MCO costs are to be covered by a TSO contribution in accordance with Articles GC 7 and 85,

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2. MCO functions referred to in paragraph 1 (b), (c) and (d) shall include in particular:

- a) Developing and maintaining the algorithms, systems and procedures in compliance with the agreed market and capacity allocation requirements for the single day-ahead coupling and likewise for the single intra-day coupling pursuant to Article 42,
- b) processing input data on cross zonal capacities and allocation constraints from coordinated capacity calculators in accordance with Articles 53 and 66,
- c) operating the single day-ahead coupling and the single intra-day coupling algorithm in accordance with Articles 55 and 68,
- d) validating and sending single day-ahead coupling and single intra-day coupling results to the NEMOs in accordance with Articles 55 and 68..

3. All NEMOs (TSOs) shall submit to the Agency a plan that sets out how to establish and perform jointly the MCO functions in accordance to paragraph 2 including the agreements between all NEMOs and with any third parties no later than ... Such plan shall include a detailed description and the proposed timescale for the implementation process, which shall not be longer than 12 month and a description of the expected impact of the terms and conditions or methodologies on the establishment and performing the MCO functions. The cooperation of NEMOs shall be strictly limited to what is necessary to jointly perform the MCO functions in an efficient and effective manner. The joint performance of the MCO functions shall be based on the principle of non-discrimination and ensure that no NEMO can benefit from unjustified economic advantages through the participation in the MCO functions.

4. The Agency shall monitor the progress by NEMOs (TSOs) in establishing and implementing the MCO functions, in particular regarding the contractual and regulatory framework and regarding the technical preparedness to fulfil the MCO functions. The Agency shall report X month after entry into force of this regulation whether the progress in establishing and implementing the single day-ahead coupling or for intra-day coupling is satisfactory and shall be entitled to start an assessment on the effective and efficient implementation of the MCO function at any time. In case such an assessment demonstrates that the requirements are not fulfilled, the Agency may recommend to the European Commission any further measures needed for timely effective and efficient delivery of the single day-ahead coupling and intra-day coupling.

5. If NEMOs fail to submit a plan to establish the MCO functions for either the intra-day or the day-ahead timeframe pursuant to paragraph 2, if the plan cannot be approved by all NRAs or the Agency pursuant to the procedure in Article 8 (4 to 9), or if NEMOs fail to implement the MCO functions according to the plan, the European Commission may take reasonable and proportionate measures to ensure the timely effective and efficient delivery of the single day ahead (or single intraday) coupling target. The Commission may in particular appoint or call upon ENTSO-E to create or appoint an entity to carry out the functions of the MCOs for the single day-ahead coupling or for intra-day coupling instead of the NEMOs.

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Article GC 5

TSOs' roles and responsibilities related to single day ahead and intraday coupling

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1. In Member States electrically connected to another Member State all TSOs shall participate in the single day-ahead coupling and the single intra-day coupling. All TSOs shall jointly:
  - a) in cooperation with NEMOs, establish TSO requirements for the price coupling and continuous trading matching algorithms for all aspects related to capacity allocation, including system security, security of supply and Economic Surplus for the single day ahead or intraday coupling maximisation in accordance with Article 43,
  - b) validate the matching algorithms against above-mentioned requirements in accordance with Article 43(4),
  - c) establish and perform capacity calculation in accordance with Articles 13 to 35,
  - d) define and send cross zonal capacities and allocation constraints in accordance with Articles 53 and 66,
  - e) verify day-ahead coupling results in terms of capacity constraints in accordance with Articles 55 and 60,
  - f) Where required, establish a Scheduled Exchange Calculators for calculating and publishing commercial cross-zonal exchanges on borders between bidding zones in accordance with Articles 56 and 64,
  - g) respect the results from single day-ahead coupling and single intra-day coupling,
  - h) publish or make available relevant data in a common platform in accordance to Regulation 543/2013,
  - i) establish and operate decoupling and fall-back procedures together with NEMOs as appropriate for capacity allocation if results are not available before a predefined deadline in accordance with Articles 52 and 57,
  - j) establish Congestion Income Distributors for the collection and distribution of congestion income in accordance with Article 81 and 75, and
  - k) Where so agreed, act as Shipping Agents in accordance with Article 74 (4),
  - l) providing input to the committees established under Articles GC 10 to GC 13 supporting the governance and decision making on single day-ahead coupling (and single intra-day coupling),
  - m) (possible MCO functions for intra-day)

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Article GC 7

Cost sharing principles

1. Costs directly related to single day-ahead coupling and single intra-day coupling shall be clearly identified and auditable. The costs shall be subject to approval by relevant NRAs. These NRAs shall approve the costs only if they are reasonable, efficient and proportionate. For this purpose, all relevant NEMOs and TSOs shall provide a yearly report to NRAs in which the costs for establishing, amending and operating the single day-ahead and single intra-day coupling are explained in detail. These costs shall be published by the Agency.
2. Costs referred to in paragraph 1 for establishing, amending and operating Single Day Ahead and Intraday Coupling shall be distinguished in:
  - (a) common costs;
  - (b) regional costs and
  - (c) national costs.

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3. Common costs pursuant to paragraph 2(a) shall be shared among the TSOs and NEMOs in the participating Member States and third countries. To calculate the amount to be paid by each country, ~~one eighth~~ of the common cost shall be divided equally for each country, ~~five eighths~~ proportionally to the consumption of each country and ~~two eighths~~ equally per each participating NEMO, with a retro-active correction possible if ~~a new Member State, or a third country joins~~. If a NEMO is nominated for several countries, the corresponding share will be divided between those countries. The amount payable ~~by the NEMOs and TSOs in~~ each country resulting from using this sharing key shall be ~~defined pursuant to Articles 85 and 86~~. ~~This cost sharing rule shall apply for costs incurred from~~ ~~(date)~~.

Article GC 8

**Third country participation**

The European single day-ahead coupling and intra-day coupling may be opened to market operators and TSOs operating ~~in third countries~~ ~~which have all their interconnectors with the EU Member States~~ on the condition that the applicable national law ~~in that third country~~ implements the main provisions of the EU electricity market legislation, the rules of this regulation are enforceable ~~and there is an intergovernmental agreement between the EU and that third country~~. The participation of third countries in day-ahead coupling and single intra-day coupling shall be decided by the Commission based on an opinion by the Agency. The rights and responsibilities of third country NEMOs and TSOs joining the single day-ahead coupling shall be consistent with the functioning of the single day-ahead coupling and single intra-day coupling system implemented at the European level. All aspects involving the Agency according to this guideline are to be bilaterally agreed between the Agency and the relevant authorities of third countries.

**[Article GC 9]**

Article GC 10

Operational committee of NEMOs and TSOs

1. ~~All~~ TSOs and NEMOs shall establish an operational committee to discuss and decide on common issues between TSOs and NEMOs enumerated in Article GC 10 (5) for single day-ahead (and intra-day) coupling.
2. The number of representatives in the operational committee shall by two thirds be nominated by ~~all~~ TSOs and one third by ~~all~~ NEMOs. The nominations shall ensure a balanced representation, with participation of all involved regions. ~~The representatives shall take due account of the opinion of TSOs and NEMOs not represented in the committee~~. The operational committee shall not have more than 15 representatives in total.
3. The Commission and the Agency may participate with one observer respectively in the operational committee. NRAs may participate with two observers.
4. The decisions in the operational committee shall be made through qualified majority. A qualified majority of both TSO votes and NEMO votes is required. The committee shall be co-chaired by a TSO and a NEMO representative.
5. The operational committee shall:
  - a) Propose, based on this regulation, a framework agreement for the relations between NEMOs and TSOs involved in single day-ahead ~~and~~ intra-day coupling. All parties of the agreement may provide their opinions to this proposal. This proposal is subject to an opinion of the Agency and approval by the Commission. ~~The~~ rights and responsibilities for new NEMOs and TSOs ~~joining the~~

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- single day ahead or intraday coupling shall be fair and non-discriminatory and consistent with the functioning of the single day-ahead and intra-day coupling system implemented at the European level.
- b) Propose and monitor the implementation of the day-to-day single day-ahead and intra-day coupling operational rules and procedures,
  - c) identify need for developing single day-ahead and intra-day coupling operational rules and procedures and propose accordant changes,
  - d) ensure proper maintenance of the related documentation material,
  - e) propose consistent European procedures including test procedures, in accordance with national or regional procedures, report conflicts and need for change and document these procedures,
  - f) coordinate regular publishing of information to stakeholders and communicating information to NRAs regarding changes, developments, achievements of the single day-ahead and intra-day coupling and ensure proper and timely communication in the case of incidents,
  - g) monitor common costs associated with single day-ahead and intra-day coupling and prepare regular report on common costs for the Agency and NRAs,
  - h) monitor the processes for the correct operation of the single day-ahead and intra-day coupling system in compliance with the rules, including proper documentation and change management,
  - i) monitor the efficiency of single day-ahead and intra-day coupling and provide information to ENTSO-E for reporting to the Agency in accordance with Article GC 16,
  - j) assess proposed changes in the single day-ahead and intraday coupling system and algorithm with respect to operational performance, compliance with prescribed requirements and costs incurred,
  - k) monitor backup procedures to manage day-to-day unforeseen incidents or extreme situations, including procedures to go to fall-back,
  - l) Establish the stakeholder committee in accordance to Article GC 12,
  - m) Consult the stakeholder committee on issues relevant to stakeholders,
  - n) Accommodate any new NEMO or TSO to the work of the operational committee, and
  - o) In case of incidents, the committee shall coordinate the investigations and propose remedial changes in the single day-ahead and intra-day coupling system.
6. In case of a dispute between representatives in the operational committee or with a NEMO or TSO not represented in the operational committee, the committee shall solicit the Agency for an opinion on the dispute. If the operational committee does not follow the opinion of the Agency, the relevant NRAs shall refer the dispute for a decision to the Agency in accordance with Article 8 of Regulation (EC) No 713/2009.

Article GC 11

NEMO coordination committee

1. A NEMO committee for co-ordinating the necessary co-operation between NEMOs shall be established by all NEMOs. All NEMOs shall be represented in the NEMO committee. Additionally, the Agency may participate with one representative as observer. The decisions in the NEMO committee shall be made through qualified majority. The decisions shall be notified to the Agency. The Agency may issue an opinion on the decision. All activities of NEMOs including the MCO functions within the NEMO Coordination Committee have to comply with EU competition law rules.
2. The NEMO-committee has the following tasks:
  - a) Setting detailed NEMO related single day-ahead coupling (and single intra-day coupling) participation criteria regarding the detailed technical requirements, allowing for fair and non-discriminatory participation of new NEMOs,
  - b) Establishing and maintaining a NEMO cooperation agreement between all NEMOs for the purpose of the joint delivering and operating of the NEMO obligations including the MCO functions ,
  - c) establishing common requirements for any separate service agreements for NEMOs wishing to access single day-ahead coupling (and single intra-day coupling) via another NEMO acting as a service provider regarding the MCO functions. Fair and non-discriminatory rights and obligations

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shall apply to all NEMOs without regards if they participate on single day-ahead coupling (and single intra-day coupling) directly or via another NEMO.

- d) identifying the needs for development and changes of the single day-ahead coupling (and single intra-day coupling) operational rules and procedures.
  - e) coordinating the NEMO participation in the operational committee if necessary.
3. In case of dispute between NEMOs in the NEMO committee, ~~the committee shall solicit the Agency for an opinion on the dispute. If the NEMO committee does not follow the opinion of the Agency on a dispute or on a decision referred to in paragraph 1, the relevant NRAs shall refer the dispute for a decision to the Agency in accordance with Article 8 of Regulation (EC) No 713/2009.~~ [within time period].

Article GC 12

Stakeholder committee for single day-ahead coupling and single intra-day coupling

1. The operational committee shall be responsible for establishing a stakeholder committee.
2. The number of representatives in the stakeholder committee shall be two representatives from TSOs, two from NEMOs, two from traders, four from generation and supply companies, two from industrial consumers, one from small supply companies, one from consumer organisations, one from the European Commission, one from the Agency and two from the NRAs.
3. The task of the stakeholder committee is to discuss and give advice regarding day-to-day operation and development of single day-ahead coupling and single intra-day coupling.
4. The stakeholder committee shall meet at least **twice** per year.
5. In case of dispute regarding nominating the representatives for the stakeholder committee, the committee shall solicit the Agency for an opinion on the dispute [within time period]. If the representatives will not follow the Agency opinion, the Commission shall decide on the representatives.

Article GC 13

Common rules for each committee

1. Each committee shall draft its rules of procedures including duration of the nomination of representatives. These rules of procedures are subject to an opinion of the Agency [within time period]. If the committees do not follow the opinion of the Agency, the rules and procedures shall be subject to approval by the Commission. The rules of procedures shall establish the voting rights for decisions and a dispute resolution mechanism. The rules of procedure shall provide for:
  - a) clear objectives and criteria for the activities of the committee and evaluation against those criteria,
  - b) efficient and timely decision making,
  - c) adequate and timely involvement of all impacted parties and stakeholders,
  - d) reasonable protection of legitimate interests,
  - e) appropriate transparency,
  - f) compliance with competition rules, in particular of the rules provided for in Articles 101 and 102 of the Treaty of the Functioning of the European Union, including the Commission Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements.
2. The committees shall ensure a high level of transparency and make publicly available relevant documents including rules of procedures, terms of references, day-to-day operational rules and

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procedures. Each committee shall publish summary minutes and relevant documents of the committee meetings.

GC 14

DELEGATION OF ROLES

1. A TSO and a NEMO may delegate all or part of any role assigned to them under this Network Code to one or more third parties. The delegating entity shall remain responsible for ensuring compliance with the obligations under this Network Code, including ensuring access for information necessary for monitoring by the NRA.
2. In all cases a third party shall have clearly demonstrated to the delegating party its ability to fulfil each of the obligations of this Regulation, prior to delegation.
3. In the event that all or part of any role specified in this Regulation is delegated to a third party, the delegating party shall ensure that suitable confidentiality agreements in accordance with the confidentiality obligations of the delegating party have been put in place prior to delegation.

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Article GC 15

Liability and incentives

1. All NEMOs and TSOs in the single day-ahead coupling and single intra-day coupling shall agree in the framework agreement in accordance with Article GC 10 5(a) on the liability of each party regarding damage caused from failure to execute its assigned tasks and responsibilities. It shall be in line with the following principles:
  - a) The liability provisions and other provisions in such agreements shall give appropriate incentives to all parties involved to perform a high quality and reliable single day-ahead coupling and single intra-day coupling,
  - b) Each party shall be liable for the tasks and responsibilities they have been assigned under this network code and guideline,
  - c) No party shall be held liable for consequential losses resulting from failure to execute its assigned responsibilities.
  - d) The liability shall be enforceable.
2. In case no agreement in accordance to paragraph 1 is reached, the relevant NRAs shall refer the dispute for a decision to the Agency in accordance with Article 8 of Regulation (EC) No 713/2009.

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Article GC 16

Monitoring by NRAs

1. In line with Article 37 of Regulation 2009/72/EC, each NEMO and the MCO function shall be subject to monitoring by the NRA responsible for the location where the NEMO carries out its activities related to the single day-ahead and intra-day coupling. The entity performing the MCO function shall be monitored by the NRA responsible for the location where this entity is located. The NRAs responsible for the monitoring of a NEMO and the MCO function shall fully cooperate and shall provide access for information to other NRAs and the Agency in order to ensure a proper monitoring of the single day-ahead and single intra-day coupling.

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2. The monitoring of the implementation of this Network Code pursuant to Article 8(8) of Regulation (EC) No 714/2009 shall notably cover the following matters:
  - a) Progress with the implementation of the single day-ahead and intra-day coupling including the choice of different available options in each country;
  - b) Report on the Capacity Calculation pursuant to Article 36;
  - c) Efficiency of the current Bidding Zone configuration pursuant to Article 39;
  - d) Operation of the Price Coupling Algorithm and of the Continuous Trading Matching Algorithm in cooperation with NEMOs pursuant to Article 43(6); and
  - e) Review of the methodology for calculating Scheduled Exchanges resulting from the Single Day Ahead Coupling pursuant to Article 50(4).
3. A monitoring plan including a plan for reports to be prepared and any update of it pursuant ~~to~~ paragraph 2 shall be submitted to the Agency for an opinion **within time period**.
4. A list with the relevant information to be communicated by ENTSO-E to the Agency pursuant to Article 8(9) of Regulation (EC) No 714/2009 shall be determined **within three months** after the entry into force of this Network Code by the Agency in close cooperation with ENTSO-E. This list of relevant information is without prejudice to the Agency's right to request from ENTSO-E other information required by the Agency to fulfil its tasks under Article 9(1) of Regulation (EC) No 714/2009. ENTSO-E shall maintain a comprehensive, standardized format, digital data archive of the information required by the Agency.
3. All TSOs, NEMOs, market participants and other relevant organisations regarding single day-ahead and intraday coupling shall submit to ENTSO-E the data required for the tasks in accordance to the paragraphs 2 and 4.

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